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VOLUME VII.

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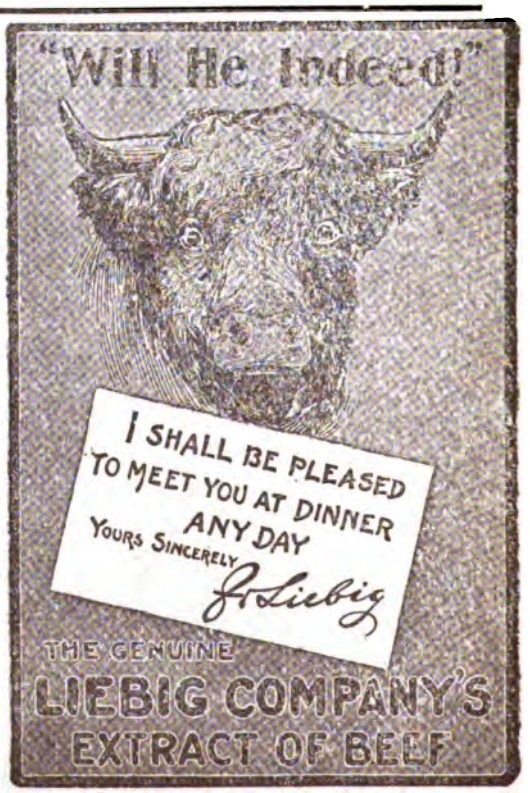

THE LATE THOMAS H. STEVENS,
REAR-ADMIRAL U. S. NAVY.

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THE

UNITED SERVICE

EDITED BY L. R. HAMERSLY, Jr.

JANUARY, 1905.

THE POLICY OF THE ENDICOTT BOARD FOR COAST DEFENCE.

THIS policy was declared by the Endicott Board of 1888, and accepted by Congress, the first appropriation thereunder being in 1890. Previous to that year there had been no specific appropriation for modern fortifications for fifteen years.

Appropriations have been made for armament, but these had in view not modern guns, but were for carrying out of an extremely unwise policy of adapting the old and worthless smooth bore guns by conversion to rifle guns, which also proved to be worthless and the money thrown away.

Since 1890, when the present policy was distinctly accepted by Congress the projects defined by it, which embraced twenty seven of the principal ports of the United States, and a part of the northern boundary, and mounting 356 breech-loading heavy guns, 544 mortars, 1,294 smaller rapid firing guns, and submarine mines and mobile defences, at an estimated cost of $126,000,000, and requiring a personnel of 87,000 artillerymen to properly man the defences, has, up to the present time (1904), been carried to about two-thirds completion as respects fortifications and armament. But the personnel then deemed sufficient and of which we then had only 3,200 coast artillerymen in service, has been increased by only 10,782 men, while the armament actually in position and ready for service requires, for a single relief for such service, over 40,000 men. The 14,000 men now in service is hardly sufficient to care for, and to keep in an efficient condition for use the enormous amount of this costly arma-

ment, much less being capable of efficiently using it against an enemy in war.

At the present time the original project of the board has been changed to embrace thirty-one harbors in the continental United States exclusive of Alaska, upon which work is being completed, besides others upon which work has not yet been commenced. These changes, together with those in the number and kinds of guns, etc., has so changed the number of the required personnel, that there is now required 57,000 regular artillerymen to furnish a single relief for service in peace, and in war not less than two such reliefs will be required, and in many cases at least three; so that the absolute minimum of personnel will be 57,000 regular, and 57,000 militia artillerymen, or 114,000 instead of the original 87,000 men for the service of the completed armament in the continental United States, exclusive of Alaska. Furthermore, to serve the armament provided for Alaska, Porto Rico, Panama, Cuba, Hawaii and the Philippine Islands will require, to begin with, 6,989 men for one relief, and as we cannot have a second relief of militia for these important places, the above number must be doubled, and consist of regular artillerymen, or 13,978 for practically "foreign" service. In other words there will be required, when the present projected armament is completed, in, say fifteen years, 71,000 regular, and 57,000 militia artillerymen, total 128,000; besides 2,170 regular, and 1,720 militia officers; aggregate 131,890.

To provide the militia contingent of these artillerymen, it is quite evident that each State having seacoast defenses within its limits, must organize a militia, or National Guard Artillery Corps, consisting of a suitable staff and a duplicate of the artillery garrisons as specified by the manning tables for the projected (or completed armament to begin with) armaments in the respective States. As a matter of course this military artillery should be organized as conveniently as possible to the vicinity of the fortifications—generally in or near the large cities found at the various harbors to be defended so that this militia may have ready access to the armament for encampments, drills and instruction.

To complete the policy for coast defense which Congress has already accepted and consistently followed for the past fifteen years, will, so far as it now appears, require 73,170 officers and men in the Army, and this number should be entirely EXCLUSIVE OF THE 100,000 NOW FIXED BY LAW FOR THE ARMY PROPER; a FIELD Army, with which Coast Artillery has no more connection than has the Navy of a country.

When the personnel of the Navy is under consideration that of the Marine Corps is never considered as a part thereof, although the crew of war ships include a proportion of marines, who are included in the Station Bill, and who are assigned to service with the Secondary Batteries. So in the Army. By that term is meant a "Field Army," mobile, and consisting of the Infantry, Cavalry, and Field Artillery arms of the Service, together with the usual and necessary staff, with which a Coast Artillery has no connection whatever—not in anywise as much as the Marine Corps with the Navy. Consequently the personnel of the "Army"—a mobile field army—should no more include the Coast Artillery, than does the personnel of the Navy include that of the Marine Corps.

It seems probable that another fifteen years will require to complete the projects now in hand, and altogether possible that at the end of that period the natural changes in the armament, and the increase in the number of harbors in Alaska and in our so-called "foreign" possessions to be defended, will call for a very material increase in the personnel above what now appears to be adequate; just as has been the case within the past fifteen years. If such proves to be the fact, all that will be necessary will be to continue for a period of years the annual increase which must now be made in the personnel of the Coast Artillery, until such deficiency has been made good. In order to make good within the next fifteen years this deficiency as at present existing, it will be necessary to annually add to the personnel of the Artillery Corps for coast defense 100 officers, and 3,582 enlisted men, proportionately in the several grades in this corps, at a cost of $5,556,000 for the first year (namely: pay, $2,630,000; barracks and quarters, $2,925,000, the former amount an increasing, and the latter a fixed appropriation during the fifteen years). At the end of fifteen years the cost of the entire corps will be about $32,000,000 per annum.

At first sight, to continue the policy of the Endicott Board to its logical conclusion in the face of such sums of money might appear wild and impracticable, especially from a POLITICAL point of view, but the wisdom of which no statesman can doubt for a moment, and after all it is not the soldier, but the statesman whose sole province is under our form of government to make adequate provision for the defense and security of the nation. From a business standpoint it is simply the cost of insurance that will insure peace and security in which to pursue our usual avocations; the want of which in 1861 has entailed not alone the loss of hundreds of thousands of the lives of our best citizens, but billions of hard gold dollars' worth of National and

personal wealth, and a pension list of a million persons at a cost of $145,000,000, annually.

If the finances of the country will permit of the expenditure, the stateman will find no hesitation in making provision for so necessary, and so secure a defense.

This very pension list with its present cost of $145,000,000, is the key to the position. It is the boast of the unwise politician that we maintain a SMALL army at a reasonable cost. But the statesman readily sees that the cost of our pension list is due altogether to this policy of maintaining a wholly inadequate army, and when this $145,000,000 paid for pensions is added to the ordinary cost of our inadequate army, we are paying out a greater amount for a purely National defense account, and for a wholly inadequate army, than is paid by the greatest of military nations for the maintenance of more than half a million of regular soldiers, with several millions of trained soldiers in reserve. We are held to be the world over a people among the best, if not the best, as a business people upon the face of the globe; but in this matter, as compared with any other people except possibly the Chinese, we don't even size up with the proverbial "thirty cents."

As has already been stated, the pension list is really the key to the present situation; as it is in fact an expenditure for military purposes, and an exceedingly unprofitable and unnecessary one from a purely military, and a National point of view as well; there can be no valid objection to continuing this expenditure, but for adequate, profitable, and purely military purposes of urgently demanded national defense.

The mean period of the Civil War, to which is due nearly the entire pension list, was April, '63; forty-two years ago in 1905. The average age of entrance into service during that war was about twenty-three years, hence the average age of the soldier pensioners of that war will be sixty-five years in 1905, and all but a very few must, if they so desire, be on the list or will be thereon at that date, numbering about 700,000 in all. At the age of sixty-five the death rate is forty-four in a thousand (American Actuaries Mortality Table), and in fifteen years, age 80, this rate will be 140 per thousand. In 1920, after fifteen years, the pension cost will have been reduced by deaths, remarriage of widows, soldiers' orphans passing the pensioning age, etc., to about $68,000,000 at most, a reduction of $77,000,000 in a single year from the present rate, or an average reduction per year during the fifteen years required to provide the Artillery Personnel heretofore indicated, of nearly $40,000,000. At the end of the period the $77,000,000 or more reduction per year will not only pay the annual cost of the Artillery increase, and $4,000,000 a year for the

militia, but will leave a surplus of $21,000,000 for the year 1921, and an increasing amount per year until the list reaches its minimum.

During the sixteen years to 1921, the number of soldier pensioners will have been reduced from 700,000 to less than 192,000; the corresponding reduction in pensions will be $589,000; the total cost of the increase of the Artillery Corps, and including that of an increase of the Field Artillery to twenty regiments, with $67,600,000 expended for barracks and quarters, stables, etc., and $64,000,000 for pay, etc., of 57,000 Militia Artillery, will be $489,000,000; leaving as net surplus at the end of the period in 1921, of $138,000,000, or enough to construct, at $7,000,000 each, twenty battleships or armored cruisers, or to pay for a large increase in the personnel of the Navy, and all of this without calling upon the ordinary income of the Government for a single cent of expenditure, except in the first four years; all of which will be made good. If a law were enacted before 1905, providing for the scheme of increase indicated, and the entire expenditure were commenced at once, within the first four years there should be a deficit of about $15,000,000, but all of this would be made good within the next four years, after which the surplus savings would go on with ever increasing rapidity.

From a purely political standpoint, this slight pinch for the coming Administration might be considered serious. But such will be far from the case. The required legislation could not be secured before January or February, 1905, and the total number of men for the first increase could not be enlisted much before June 30, 1906, and the cost of this increase would thus be considerably reduced; again, before the organization of the Militia Artillery could be perfected, and for which $4,000,000 has been allowed, action by the various State Legigislatures must first be had, and after this it would again be some time before the maximum number could be organized and made ready to go to the fortifications, so that, all things being duly considered, the reduction of the pension cost during the next administration will about cover the entire cost of the carrying out of the policy indicated during that administration.

Aside from this view of the conditions, by 1921, the population of the country will exceed 100,000,000, and its wealth will be more than doubled. Its income will be enormously increased, and, with a constant decrease of its debt and the interest incident thereto—in a greater ratio than will be the natural increase in expenditures. Constantly, even after all of the expenditures incident to the completion of the policy of the Endicott Board, the surplus will pile up to such an extent that no reasonable expenditure can keep it down, and the TARIFF

WILL HAVE TO COME DOWN WHETHER OR NO, in order to reduce the unnecessary income.

It is perfectly apparent that the time has arrived in the carrying out of the policy for Coast Defense, when it is urgently necessary to commence the provision for the proper increase in the personnel of the Artillery Corps and in the militia; and it seems that the expected conditions in the Nation's financial affairs could not be more propitious to such an end. On the 30th of June, 1903, this Corps was short 26,000 of the men necessary for one relief for the manning tables for the armament then actually in position. (See Journal Military Service Institute, April, 1904, p. 220.) The proposed scheme would not provide one-fifth of this shortage for the first year, nor would it provide the full number required until after fifteen years; and not even then if future conditions repeat those which have so changed during the past fifteen years.

There is another feature of the situation that will be viewed with more complacence from the political standpoint. A congressional delegation securing an appropriation of a million and a quarter for its state would be considered as having done a great thing for their constituents. The pay, etc., of the garrisons of each artillery district when completed will amount to about that sum, not for one year, but annually for all time; and the pay, etc., for a regiment of Field Artillery together with horses, etc., will amount to about the same annually, aside from the million and a third for barracks and quarters, etc. There are twenty-two states, having forty-four Senators and 207 Representatives, having Coast Defenses within their limits, six others having twelve Senators and thirty-seven Representatives on the northern frontiers, along which the Endicott Board located defenses, and along which at least three siege artillery regiments should be distributed, and six other States in which Field Artillery regiments would be stationed. Besides this the scheme proposed provides for sixteen other regimental posts for the field artillery, which should be located: 1st, where good horses and forage abound; 2d, in a mild climate which will enable men and horses to be out without inconvenience throughout much of the year, and 3d, near a mountainous country where large reservations can be secured at little cost, insuring field artillery practice up to a range of at least 7,000 yards. Such conditions will be found in California, Kansas and the District of Columbia(?), for the three regiments of Horse Artillery.

In Pennsylvania, Kentucky, North Carolina, Tennessee, Virginia and Oregon for six regiments of light Field Artillery, and in Georgia, Alabama, Missouri, Arkansas, Washington and California for six

regiments of Heavy Field Artillery. The three Siege Artillery regiments distributed to Vermont, Michigan, Wisconsin, Minnesota, Nebraska and Montana. (It should be remembered that there is another condition connected with the distribution of the field artillery, namely: in a manner convenient to the organization of the military forces into army corps.) Of the two regiments of mountain artillery, one would be on so-called "foreign" service, and the other stationed in Missouri where plenty of the best mules are found. A large majority of the sixty-six Senators and nearly 300 Representatives would be politically very much interested in the distribution of the money necessary for carrying out the policy of National Defense. It is also the duty of a wise statesman to previse if possible, so that the money collected by the Government for its expenses shall return to the people as equally as possible, which would very largely be the case in carrying out this policy. An army is generally supposed to be a great but necessary evil; all things considered this is very far from being the truth, even in the most military nations. There are many and great mitigating circumstances; not the least of which is the fact that every dollar of military appropriations in this country almost immediately find its way back to the pockets of the taxpayer.

It is beyond question that the Field, should be separated from the Coast Artillery, and reorganized into regiments as is the case all over the world. There is no more nor any less reason for organizing troops of cavalry and companies of infantry into regiments, than batteries of Field Artillery. They all belong definitely and absolutely to a FIELD army; forming the "three arms" thereof, and none having any direct connection with Coast Artillery more than another.

It is also beyond question that the same policy should be applied to the Field Artillery that has so wisely been applied to the cavalry arm of our service, and to a less extent in every modern army; namely; to provide the maximum possible strength for both arms of the mounted service, because these arms are entirely too costly to find representation in the militia, and require entirely too long a period for the acquisition of efficiency to be depended upon in either the militia or volunteer forces of this country, in these days of sudden and powerful attack.

To advocate the continuation of our already established policy in the manner and to the extent indicated, will no doubt excite no small amount of interest, and not in its favor—at first at least. But when it is understood that it is only carrying to a logical and extremely wise conclusion a policy already adopted, and which has been followed for

fifteen years, and at great cost under adverse financial conditions, it will present a very different aspect.

When the question of the recent organization of the Army was up for consideration, the party in opposition was bitterly opposed to any increase of the Army other than for coast defense. The reasons for such a force appeal directly to every mind, and the Coast Artillery stands before the people in much the same light as does the Navy. In fact the latter would have no value as a military force unless the Coast Artillery could insure for it a safe and certain base of operations in the harbors it defends.

This country is at last "up against it," as the common saying has it, and there is no sense whatever in not squarely facing the problem, and correctly solving it at once. The questions of expediency and of makeshifts are peurile and unworthy the consideration of even a reasonably wise politician, much less a statesman. One of these is to confine the service of the regular Artillerymen to that of the heavy guns and mortars, and turn the rapid fire armament over to the militia. As well might the Regular Army be confined to a single arm—the field artillery or the cavalry, and depend upon the militia for the other arms. Such a proposition is not one whit more absurd than the other.

One or the other of the arms of the service is at some time of vastly greater importance in battle than either of the others, or both. But it requires the combination of the three arms to make an efficient army. The same applies to the Coast Artillery; the heavy guns, the rapid-fire guns, the submarine defenses and the mobile defenses on land and water. At some time in battle any one of these will become of much greater importance than all else, and in case of the rapid-fire guns the stress, confusion and danger will be greater than all else combined, requiring not the poorest, but by far the coolest, bravest and most efficient of all the personnel of the Coast Artillery.

According to the experiences of many generations of artillerymen in coast defense, there should be three reliefs to complete the manning tables for the armament in war. We have no valid reason for believing that this requirement is not just as absolute as it ever was; for some of the duties it is even more so. This would call for 213,000 men and 6,000 officers, all in the regular Artillery Corps to properly and adequately man our defenses when completed, and there is no one wise enough in this day or generation to say authoritatively that every man of this force is not necessary in case of a sudden and powerful attack, or that such an attack is not possible. When we ask for a single one of the necessary three reliefs of regular artillerymen, sub-

stitute a relief of militia artillerymen for the second (except in foreign parts), and discard the third relief entirely, it may be confidently asserted that we have gone much further in the direction of expediency than wisdom dictates.

This, then, may safely be asserted to be as far as we dare go and still believe that we can, under such conditions, put up an efficient and certain defense. This is certainly the minimum that any authority upon the subject of Coast Defense has ever accepted as possible, and this, then, is what we should demand, and what the military powers that be should approve and aid us to the utmost in securing, and that in turn the statesmen, and the Congress in power should call into being.

If we are to trust to a militia artillery for one relief in war, provision should be made for very much more active service at the guns than has ever been exacted from any militia in this country, in order to insure even a reasonable measure of efficiency. To require it to encamp at the fortifications for not less than fifteen days each year, and to drill thereat not less than twenty-two nor more than forty-five other days, would certainly be a minimum. But it would be utterly useless to expect this unless the men were paid, and provided with rations and transportation, etc., which for 59,000 officers and men would cost about $4,000,000 a year. If, then, this number of men is to have real value, that amount of money a year is certainly a mighty small sum with which to secure the services of so powerful a force of coast artillerymen; the fact would appear to be that the cost is so little that the article is a mighty "cheap" one indeed. However, if we can get intelligent men, and they will give fifty or sixty days' service during each year alongside our regular artillerymen and under their officers, we certainly should be able to turn out a better drilled, instructed and disciplined body of militia than this country has ever yet seen. At the same time it can be iterated that no militia in this country will ever submit to such a course of training unless adequately paid therefor; which pay should of course be the same—grade for grade—as the regular artilleryman receives for each day of service at the guns.

With the strength of the Artillery Corps made exclusive of the 100,000 men authorized for the Army, its present strength (1904), of 67,259, as shown by the Army Register, would be reduced to 53,755, four regiments thereof being Field Artillery. The addition of one regiment, about 1,178 officers and men, would in twelve years bring the strength of the field army proper back to its present strength;

67,891 in 1917, and to 72,603 in 1921, or 5,344 more than the present strength of the "army" proper.*

At present the cavalry of the Army is capable of furnishing a brigade of cavalry to each of the six Army corps, with three regiments to spare.

With the scheme here proposed carried out by 1921, the field artillery could then provide each of these six corps with a regiment of light field artillery for the divisional, and a regiment of heavy field artillery, and a battalion of horse artillery for the corps artillery.

From the Infantry Drill Regulations, a brigade would consist of three regiments, 5,400 muskets; a division of two brigades, 10,800 muskets; a corps of three divisions, 31,400 muskets, 2,400 cavalry, and 4,600 field artillery, total for the corps 38,400 fighting men. With three armies of two corps each distributed along say the Atlantic and Gulf coast, each army would have a strength of 76,800 fighting men, exclusive of the militia in the vicinity of its station, the total strength being 220,400, requiring 108 regiments of infantry to complete the organization. Of these twenty would nominally be found in the continental United States, and eighty-eight regiments of militia would be required, or of volunteers in case of war.

It need hardly be said that a force of 220,000 men, even including also the militia, would find it no easy matter to defend our enormous coast line from New Brunswick to Mexico from a determined and powerful attack, to be delivered at some absolutely unknown point along this extensive frontier.

A very superficial study of our military condition will reveal the fact that other features of our National defense are not by any means what they should be, though not by any means so bad as those relating to Coast Artillery defense, and to the field artillery of the Army.

NOTE.—Since the above was written the new drill regulations for the Coast Artillery have been received, which increases the gun attachments for 12-inch guns from the 18, upon which the total force of 71,000 artillerymen was computed, to 21 men; for a 10-inch gun from 14 to 19, and for an 8-inch gun from 12 to 17. As there was provision made by the Endicott Board for 356 such guns (to say nothing of the additional guns for new projects, and those for the so-called "foreign" defenses), the additional men required beyond the estimate herein presented will be 1,560 privates; so there need be no fears of an overestimate. The facts of the matter are that by 1920, any estimate now made will fall short by many thousands of the requirements of that date. This already mighty country is not going to stop grow-

*See July-August, 1904, number *Journal of the United States Artillery.*

ing, nor are its imperial requirements—whether for peace or for war—to stop increasing at a marvelous rate; what looms gigantic to us of to-day, will inevitably look commonplace to those of even half a generation hence.

ARTILLERY CORPS U. S. ARMY, LIEUT. GENL.

ARTILLERY DIVISIONS, MAJ. GENL.

1. North Atlantic.
2. So. Atlantic (and Gulf.)
3. Pacific (and Hawaii.)
4. Philippines.

ARTILLERY DEPARTMENTS, BRIG. GENL.

1. New England.
2. Long Island Sound.
3. New York Harbor.
4. Middle Atlantic.
5. South Atlantic.
6. Gulf
7. West Indies (and Panama.)
8. South Pacific (and Hawaii.)
9. North Pacific (and Alaska.)
10. North Philippines.
11. South Philippines.

ARTILLERY DISTRICTS, COLONELS OR LIEUT. COLONELS.

1. Penobscot, Me.
2. Kennebec, Me.
3. Portland, Me.
4. Portsmouth, N. H.
5. Boston, Mass.
6. New Bedford, Mass.
7. Narragansett Bay, R. I.
8. E. Entrance, L. I. Sound.
9. New York, N. Y.
10. Philadelphia, Pa.
11. Baltimore, Md.
12. Washington, D. C.
13. Hampton Roads, Va.
14. En. Chs. Bay (C. Henry.)
15. Wilmington, N. C.
16. Charleston, S. C.
17. Port Royal, S. C.
18. Savannah, Ga.
19. St. John's River, Fla.
20. Key West, Fla.
21. Tampa Bay, Fla.
22. Pensacola, Fla.
23. Mobile, Ala.
24. New Orleans, La.
25. Sabine Pass, Tex.
26. Galveston, Tex.
27. San Diego, Cal.
28. San Francisco, Cal.
29. Presidio, San. Fran., Cal.
30. Columbia River, Ore.
31. Puget Sound, Wash.
32. Lake Champlain.
33. Sitka, Alaska.
34. Fort Wrangel, Alaska.
35. Dutch Island, Alaska.
36. Manila Bay, Luzon, P. I.
37. Subig Bay, Luzon, P. I.
38. Batangas Bay, Luzon, P. I.
39. Lamon Bay, Luzon, P. I.
40. Sorsogon Bay, Luzon, P. I.
41. Port Galera, Mindoro, P. I.
42. Port Romblon, Romblon, P. I
43. Masbate, Masbate, P. I.
44. Balabac Island, P. I.
45. Palapay, Samar, P. I.
46. Tacloban, Leyte, P. I.
47. Iloilo, Panay, P. I.
48. Bais, Negros, P. I.
49. Cebu, Cebu, P. I.
50. Tagbilanan, Bohol, P. I.

51. Port Princesa, Paragua, P. I.
52. Davao, Mindanao, P. I.
53. Sungua, Mindanao, P. I.
54. Isabela, Basalin, P. I.
55. Guam Island, P. I.
56. Pearl Harbor, Oahu, H. I.
57. Hilo, H. I.
58. San Juan, Porto Rico.
59. Culebra Islands, P. R.
60. Guantanamo, Cuba.
61. Bahia Honda, Cuba.
62. Panama Bay, Panama.
63. Colon, Panama.

NOTE.—There will not be either in the Army or the Navy any officer of like grade who will hold commands that in anywise equal in importance and responsibility those enumerated above, when reasonable provision has been made for their defense in armament and personnel.

A BILL.

To perfect the policy of the Endicott Board by providing the personnel for one relief of regular artillery, and one of militia artillery for the service of the armament of the coast defenses in the United States proper, and two reliefs of regular artillery for the service of the armament in territorial parts, and to organize the field artillery of the United States Army; within a period of sixteen years:

BE IT ENACTED, ETC., That the Artillery Corps shall hereafter consist of one Lieutenant General commanding, four Major Generals, eleven Brigadier Generals, each with the usual staff of artillery officers herein provided for, forty-two Colonels, seventy-three Lieutenant Colonels, one hundred and sixty-seven Majors, five hundred and eighty-four Captains, six hundred and forty-six First, and six hundred and thirty Second Lieutenants, forty-two Chaplains, fifty-two Master Electricians, one hundred and sixty-two Electrician Sergeants, one hundred and fifty-six Sergeants Major, four hundred and seventy First Sergeants, four hundred and seventy Company Quartermaster Sergeants, four thousand and twenty Sergeants, four thousand one hundred and eighty-eight Corporals, nine hundred and forty Mechanics, nine hundred and forty Musicians, nine hundred and forty Cooks, eighteen thousand nine hundred and eighty-seven First-class Privates, thirty-seven thousand nine hundred and ninety-two Privates, to be organized as the President may direct; and forty-two Bands as now provided by law for a band in the Artillery Corps;

PROVIDED, that there shall be organized in the Militia of each State having Sea-coast Defenses therein an Artillery Corps which shall provide a Chief of Artillery and the necessary staff, and a personnel for one relief for the service of the armament, which shall be a duplicate of that for the Regular Artillery as prescribed by the President for the respective States;

PROVIDED FURTHER, That the Militia organized for Coast Defense shall encamp for a period of not less than fifteen days in each year for drills and practice with the guns at the fortifications to which they are respectively assigned by their duly approved manning tables, and they shall proceed to the same places for such purposes not less than twenty-two, nor more than forty-five other days during the year, and when on such duty said militia shall receive the same pay, rations and transportation authorized by law for like grades in the Artillery Corps of the United States Army.

PROVIDED FURTHER, That the personnel of the Coast Artillery Defenses of the country shall be in excess of the limitation of the strength of the Army to one hundred thousand men;

AND PROVIDED FURTHER, That upon the passage of this Act the number of Officers and men transferred from the Artillery Corps to the Field Artillery shall be replaced in said Corps, the enlisted men in such grades as the President may direct, and that the members of the grades of Generals and Colonels herein provided for in the Artillery Corps shall be filled from that corps at once to the end that the necessary Artillery Divisions, Departments and Districts may be designated and organized at once;

AND PROVIDED FURTHER, That of the increase in the Artillery Corps below the grade of Colonel herein provided for one-fifteenth as nearly as may be in each grade shall be made on the first day of July in each of the succeeding fifteen years after that of the passage of this Act; And that the President in his declaration in the event of probable war may complete this organization, and that the pay and allowance of the officers and enlisted men of the Artillery Corps shall hereafter be the same as now provided by law for like grades in the Corps of Engineers.

Sec. 2. That hereafter the Field Artillery of the Army shall consist of one Lieutenant-General, Chief of Artillery, three Major Generals, seven Brigadier Generals, and twenty regiments of Field Artillery, namely, three regiments of Horse Artillery, six regiments of Light, and six regiments of Heavy Field Artillery, two regiments of Mountain Artillery, and three regiments of Siege Artillery; that the thirty batteries of Field Artillery now auhorized by law for the Artillery Corps are hereby detached therefrom and with six new batteries to be organized, shall be by the President organized into four of the regiments hereinbefore authorized;

PROVIDED, That he shall on the first day of July, in each of the next succeeding sixteen years after that of the passage of this

Act cause to be organized an additional regiment of the Field Artillery, as herein provided for;

PROVIDED FURTHER, That the President in his discretion in the event of probable war may complete the organization.

Sec. 3. That the President may select the General Officers for the Field Artillery at once from the field officers of the Artillery Corps and promote them to these grades as herein provided for, and he may select the field officers of the four regiments first to be organized and promote them to the Field Artillery from the same or the next lower grades in the Artillery Corps, and he shall select the Captains and Lieutenants for these four regiments from like grades in that Corps and transfer and assign them to the Field Artillery. As the additional regiments or personnel herein provided for are organized, promotion to them, or in the Artillery Corps, shall be made by seniority in the Field Artillery or in the Corps as now provided by law for promotion in the line of the Army.

Sec. 4. That a regiment of Field Artillery shall consist of one Colonel, one Adjutant, one Ordnance Officer, one Quartermaster, one Commissary, one Chaplain, one Veterinarian with the rank, pay, and allowance of a Captain, mounted; one Sergeant Major, one Ordnance Sergeant, one Quartermaster Sergeant, one Commissary Sergeant, one Farrier Sergeant, one Saddler Sergeant, two Color Sergeants, one Chief Trumpeter, a Band as now provided by law for a regiment of Cavalry and three Battalions. The regimental Adjutants, Ordnance Officers, Quartermasters and Commissaries shall be extra Captains selected from the Captains of their respective regiments. A Battalion of Field Artillery shall consist of one Lieutenant Colonel, one Major, one Battalion Adjutant, one Battalion Ordnance Officer, one Battalion Quartermaster and Commissary, one Battalion Veterinarian, one Battalion Sergeant Major, one Battalion Ordnance Sergeant, one Battalion Quartermaster Sergeant, one Battalion Commissary Sergeant, one Battalion Farrier Sergeant, one Battalion Saddler Sergeant, one Battalion Standard Bearer (Corporal), two Trumpeters and three Field Batteries organized as now provided by law. The Battalion Adjutants, Ordnance Officers and Quartermasters and Commissaries shall be extra First Lieutenants, selected from the First Lieutenants of their respective battalions. Of the Battalion Veterinarians the senior half shall have the rank, pay and allowance of a first lieutenant mounted, and the junior half the rank, pay, and allowances of a second lieutenant mounted; PROVIDED, That all of the enlisted men of the mounted service shall receive one dollar and thirty-two cents additonal clothing allowance, and one set of cloth chev-

rons and stripes per annum, and one set of gold chevrons and stripes per enlistment shall be added to the allowance of non-commissioned officers, and that in the Field Artillery drivers shall receive three dollars additional pay per month, and the pay of Corporals shall be twenty dollars, of Sergeants twenty-five, of battery staff Sergeants thirty, of battalion staff Sergeants thirty-five, and of regimental staff Sergeants forty dollars per month, together with the allowances now provided by law; PROVIDED FURTHER, That the President, when he may deem it necessary, may add to each or any of the battalions of Field Artillery one battery which shall be equipped for service as Field Artillery, and one battery which shall be equipped for service as a field artillery ammunition train; and he may also add to the Field Artillery ten Veterinarians of the senior and ten of the junior grades of Lieutenants for service with the ammunition trains, and the artillery depots or otherwise as he may direct; AND PROVIDED FURTHER, That all officers of the Artillery Corps or of the Field Artillery regularly detailed for special duty which detaches them from duty with their respective arms of the service, shall be extra officers of their several grades in these arms.

Sec. 5. To provide barracks and quarters, stables and bun sheds concurrent with the increase of the artillery herein provided for, the following sums are hereby appropriated annually from any funds in the Treasury not otherwise appropriated: for the Artillery Corps two million nine hundred and twenty-six thousand dollars each year for the years 1904 to 1920 inclusive, and for the Field Artillery the sum of one million three hundred thousand dollars annually for the same period; PROVIDED, That the sums above named, respectively, for the current fiscal year shall immediately become available.

Sec. . That the number of Cadets now authorized by law to be appointed to the United States Military Academy is hereby doubled.

Sec. . That all laws or parts of laws inconsistent with the provisions of this Act are hereby repealed.

PENSION REDUCTION TO 1921.

The number of Civil War Soldier Pensions reported for 1904 is 704,360, and the average pension for *all* pensions as $138.45. The average pension for soldiers is not less than $144 per year, and probably about $153. To be on the safe side, it is taken as $144 in this table, and no account taken of the reduction incident to the deaths of veterans of other wars; of deceased widows, minors passing the pension age, etc., which will affect those incident to pensions for other widows added to the roll. Age of entrance of soldiers in Civil War,

23 years, the mean period of that war, April, 1863, giving average in April, 1904, as 64 years. Cost of addition of 4,810 coast and field artillerymen annually, $2,630,000, an annually increasing cost. Cost 59,000 militia annually, 4,000,000, and for barraacks and quarters, stables, etc., until 1921, $4,226,000 annually; a fixed cost.

Year.	Male Civil War Pensioners.	Deaths per 1,000.	No. of Deaths.	Annual Reduction.	Annual Cost of Artillery and Militia Increase.	(—) Deficit. (+) Surplus.
1904....	700,000	41	28,700	Average age of pensioners, 64 years.		
1905....	671,300	44	29,537	$4,253,328	$10,856,000	—$6,602,672
1906....	641,763	48	30,806	8,689,392	13,486,000	— 4,796,608
1907....	610,957	51	31,159	13,176,288	16,116,000	— 2,939,712
1908....	597,798	56	32,496	17,855,712	18,746,000	— 890,288
1909....	547,329	60	32,840	22,584,672	21,376,000	+ 1,208,672
1910....	574,489	65	33,442	27,400,320	24,006,000	3,394,320
1911....	481,047	70	33,673	32,149,232	26,636,000	5,513,232
1912....	447,374	76	34,000	37,045,232	29,266,000	7,779,232
1913....	413,374	82	33,897	41,926,400	31,896,000	10,030,400
1914....	397,477	88	33,394	46,765,136	34,526,000	12,239,136
1915....	346,083	96	33,226,	51,549,680	37,156,000	14,393,680
1916....	313,857	103	32,327	56,204,768	39,786,000	16,418,768
1917....	281,530	111	31,250	60,704,768	42,416,000	18,288,768
1918....	250,280	120	30,034	65,029,664	45,046,000	19,983,664
1919....	220,254	130	28,600	69,148,060	47,676,000	21,472,060
1920....	191,654	140	26,832	73,011,868	50,306,000	22,705,868
			508.346	$627,495,620	$489,296,000	$138,199,620 Net

A. D. SCHENCK,
Lieut.-Col., Artillery Corps.

IS THE PRESENT ARMING OF OUR FIELD ARTILLERY TROOPS WITH SABERS AND SMALL ARMS ADEQUATE?

(Anonymous.)

(Jahrbuecher fuer die deutsche Armee und Marine, May, 1903.)

Translated November 27, 1904, by John P. Wisser, Major, Inspector-General.

In order to answer this question intelligently, let us first consider how the mounted and unmounted non-commissioned officers and men of the Field and Horse Artillery, as well as of the artillery train or the ammunition columns are armed.

Non-commissioned officers and mounted men of the Field Batteries, as well as the entire personnel of the Horse Batteries, carry, besides the *artillery saber* (the train drivers of the ammunition columns have the broader and heavier cavalry saber), the revolver (model of '79). The former on dismounted duty is carried on the waist belt; on mounted duty it is carried fastened to the saddle. The revolver, introduced on April 1, 1879, is carried in a leather holster on the waist belt.

The unmounted men of the field batteries are armed with the side-arm which was carried by the infantry as early as the middle of the seventies of the last century, and the revolver (model of '83).

As regards the ammunition columns, it may be stated that only the mounted escort—that is, as a rule, only the non-commissioned officers—carry besides the saber, the revolver, the drivers, however, only the former, and the unmounted men of the escort carry besides the side-arm, either the carbine (model of '88), or the infantry rifle.

In time of peace for the field artillery there are annually twenty revolver ball cartridges allowed for each officer and non-commissioned officer, and ten for each driver and cannoneer for target practice. This takes place according to the Firing Regulations of November 29, 1888, the target practice year beginning on October 1 each year, and ending on September 30 of the next. The practice includes both preparatory exercises and accurate target practice, in order that the man may be able to use his revolver effectively in battle as well as (if need be) in quarters.

The armament of our field artillery, therefore, as regards small arms and side arms, comprises for the field two kinds of revolvers, one carbine or rifle, one saber and one side-arm. This is certainly not advantageous, inasmuch as two kinds of ammunition (revolver and infantry rifle) are required.

Does the field artillery soldier absolutely need a side-arm in the field? I believe that this question can be answered in the negative without interfering with the legitimate requirements of the Field Artillery service. The mounted soldier will, in case of emergency, undoubtedly prefer to make use of a good shooting weapon in his defense on horseback, since the drawing of the saber hanging on the saddle has its difficulties for the driver who is guiding his two horses; and on foot every man prefers to make use of the shot rather than the cut or thrust; indeed, the use of the latter is often rendered impossible, as, for example, in houses in the last stages of the defenses, due to obstructions, such as doors, walls, stairs, etc.

The side-arm is, therefore, for the field artillerist practically worthless. Not even for splitting wood is it really useful; in the field, it may be remarked, the dry cord wood furnished in barracks is not usually available, but trees have to be felled, and they can hardly be broken up properly with the battery axes at times, not to speak of lighter implements. The proposition to take away the side-arm (including the saber) from the field artillery appears somewhat radical; but I believe it can be accomplished. By giving the entire field artillery a modern repeating weapon instead of the cutting and thrusting arm, uniformity in armament and ammunition will be at once atttained, and at the same time the horses will have to carry several hundred grams less weight.

To be perfectly fair, however, it should be stated that the saber is generally only desired as a weapon of last resort, in cases where the re-loading of the emptied fire arm is no longer possible, or where a soldier has to do with a hostile inhabitant who is merely obstinaate, and not openly resisting, and to whom a blow with the flat of the sword, for example, will suffice, or in case of an armistice, or in times of occupation of a hostile country, when the loaded fire-arm is no longer in place. But if the soldier is to be thoroughly familiar with his fire-arm, and entire master of it, then more weight must undoubtedly be attached to his proper training in its use, far more than has heretofore been the case.

I will not go so far as to require of the Field Artillery soldier that he be trained as systematically and carefully as the infantryman in aiming with the small-arm rifles, in preliminary training, in aiming

drill, etc., because his principal arm must always be the field piece; nevertheless, it is often advantageous to have him trained in the proper use of a hand weapon (revolver or pistol). Consequently, it would be to the point if superiors, impressed with the importance and value of shooting with such weapons, would, in their inspections, lay proper stress on training in this particular, and call attention to the fact that the training, according to the above mentioned Firing Regulations, should "extend over the entire target practice season," and not be completed in one or two days, as is often the case at present. Of course, for this purpose, the 20 (or 10) service rounds, and the small number of blank* rounds allowed, will not suffice, and this allowance must be largely increased.

The fact that the field artillery carries two different models of revolvers is another disadvantage, but not a great one, since they differ very little, and fire the same ammunition. Moreover, the revolvers in use, especially those of the field artillery, are so decidedly obsolete that their abolition must, in any event, very shortly take place as soon as the question of a modern automatic pistol of small caliber, firing steel jacketed projectiles by means of smokless powder, is settled in Germany for the other arms of the service, in favor of one or other of the systems proposed, the field artillery must be similarly armed.

The men of the artillery train, or ammunition columns, are to constitute a reserve for the field batteries; in case of serious losses in battle or when the batteries are depleted from other causes, these will have to be drawn upon. The drivers who have generally served in time of peace with the Field Artillery or the cavalry, have no fire arms at all. Why the drivers, in case of a surprise, for example, should not be enabled to defend themselves I cannot understand. Moreover, the unmounted escort generally old artillerists carry the carbine, model '88, the use of which they have to learn after being called into service again, and which, consequently, they are rarely ever sufficiently familiar with. For, in the comparatively short time of mobilization of today, there is no opportunity for their instruction, and after that, from the beginning of operations on, the entire capacity of the train, on account of the marching power required, will be constantly called into requisition. Both drivers and escort may, after the first battle, be needed in the fighting battery, and may then for the

*The German blank cartridge here referred to is the Platz patræ (literally, bursting cartridge), of the same shape and size as the service ball cartridge, with a little difference in the powder charge and a projectile made of wood, hollow, which is blown into small fragments in firing. In the maneuvers it is considered safe at 100 yards range.—TRANSLATOR.

first time receive fire arms, or at least different ones from those they previously had. In my opinion, such disadvantages should be corrected. These men must, on being called into service, receive a uniform and modern hand fire-arm (pistol or revolver).

The purposes for which the field artillerist requires a good fire arm (I do not insist on an automatic pistol, but include a repeating carbine, although the former appears preferable to me), differ according as he happens to be in battle or in camp or quarters.

In battle it will probably happen that the battery coming into position under cover, or standing ready in support or in reserve, is observed by hostile cavalry patrols at comparatively short distances, when there is no infantry support at hand. Shots from the present revolver will be useless because the latter kicks too hard to warrant even approximate accuracy of fire in the hands of any but a good shot, at the ranges which will probably obtain, especially as the sight is not graduated for such ranges. Since the artillery cannot very well fire on small patrols with its guns, it will be forced to become a mere spectator, while the hostile cavalry officer quietly carries on his observations, and sends off reports on the position taken up and on all changes of position, or the hostile detachment may take the battery under destructive fire, and remain undisturbed itself.

Should hostile cavalry succeed in coming unexpectedly upon the flank or rear of the fighting battery, the men, in case the guns cannot be turned promptly in the required direction, must defend themselves with their sabers or revolvers. Field artillery or ammunition trains on the march, and the latter in parking, must act in a similar way. Aside from the fact that such circumstances, which are certainly not beyond the realm of possibility,are never practiced in time of peace, our obsolete revolvers are not adequate for this purpose. Moreover, six shots in the magazine are too few, since a reloading of the latter in the heat of battle, is practically impossible.

In quarters, especially in ammunition columns in rear of the army, where fighting sub-divisions are not always available for their protection, the artillerist requires above all an easily manipulated fire-arm. in order to defend himself, in case of a surprise, against an adversary at short range, or in order to enforce prompt obedience when alone. The sabre is of comparatively little use under such circumstances; a revolver barrel leveled at the face speaks in a language which everyone understands.

I therefore sum up the matter in the following conclusion:

The field artillery requires in time of war a small caliber automatic pistol with a magazine containing a large number of rounds, capable of hitting at 450 yards range, or a modern magazine carbine.

*PRESIDENT ROOSEVELT'S OPPORTUNITIES.**

ACCORDING to all trustworthy accounts the recent Presidential election in the United States was the dullest that has been witnessed for some decades. All the recognized mechanical incentives to popular enthusiasm were employed; but the public declined to "enthuse," despite the parades, the fireworks, the advertisements, the professional oratory, and the desperate efforts of the journalists to work their readers into the customary quadrennial paroxysm. Outside the Southern States the great majority of respectable Americans had made up their minds that Mr. Roosevelt was going to be elected, and the minority were not seriously disturbed at the prospect. As a show, the campaign, on either side, was a failure; it filled the newspapers, but the people turned aside from the close-printed columns, and were more interested in the visit of the Archbishop of Canterbury and the singular conjunction of the Church and the World, as illustrated by the hob-nobbing of his Grace with Mr. Pierpont Morgan. Yet this "apathy," as we call it in our politics, disappeared at the polling-booths. The electors did not fail to exercise their suffrage, and they gave a record vote. The majority for President Roosevelt is the largest in the history of the Union; no man, so far as we know, has ever been appointed to any place or office by the choice of so overwhelming a multitude of his fellow-citizens. Perhaps, then, the Presidential electors did not regard the event with indifference. But they knew that the result was a foregone conclusion, and they saw no reason for making a fuss over it in advance. The Americans are a sentimental, but at the same time a practical, people.

From the practical point of view, they must know that it is not a light thing they have done. The re-election of Mr. Roosevelt to power, with this tremendous national "mandate" behind him, may have important consequences for the United States, and for other countries as well. For the next four years, and perhaps for the next eight, the executive of the largest homogeneous civilized population in the world will be controlled by the foremost representative of American self-

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assertion in international politics. Imperalism was the most vital of the issues involved in the electoral campaign. Most of the other differences between the parties were blurred or shadowy. The Tariff was introduced *pro forma,* but no one really believes that there is any substantial divergence of principle on that point. High Protection has probably reached its zenith, and may begin to slope very slowly downwards, no matter which party is in power; neither of them could, or would, venture on any substantial advance towards genuine Free Trade. The defeat of the Bryanite Democrats at St. Louis has taken the currency out of party politics. On the Trusts, both say a good deal, and say it with equal obscurity.

In all these matters the elector might easily feel that there was little to choose between Judge Parker and Mr. Roosevelt. But in temperament, in character, and in their outlook on affairs, there is a good deal to choose. The personality of the President was the real electoral asset of the Republicans, just as it was the strongest "plank" in the platform of the Democrats. Mr. Roosevelt was denounced as a kind of prancing Proconsul, an American Boulanger, who might perhaps use his 60,000 soldiers to subvert the Constitution, and would in any case be sure to plunge the Union into the welter of world-politics, and hurry it upon every sort of aggressive adventure. Mr. Bryan says that the President's "big stick" policy, his "physical enthusiasm and love for war," are a direct menace to constitutional government, and a cause of justifiable alarm. The majority of American voters were, however, not alarmed. They do not believe in Mr. Bryan's phantasmal Cæsarism; they know well enough that the liberties of eighty millions of people are in no danger from an army smaller than that of Belgium. They prefer the big stick to the painted reed. "The subject of Imperialism," says Mr. Bryan, "is, all things considered, the most important of the questions at issue between the parties." If that is true, the Imperialists have won a striking victory. The policy of Mr. Roosevelt in China, in Central America, in South America, towards Germany, towards Turkey, towards Russia, has been endorsed by the constituencies. The President and the Secretary of State are enabled, they are indeed encouraged, to carry it further.

And carried further it probably will be. On the very morrow of the elections two important pieces of information were cabled from America. The one was the announcement that the State Department had proposed to confer with the British Government on the subject of an Anglo-American Treaty of Arbitration; the other, that the Navy Construction board had propounded a ship-building scheme, which, if

accepted by Congress, will make the United States the third, if not the second, maritime Power in the two hemispheres, within a very few years. We must take these two items together, and put them side by side with the intelligence that the President's invitation to the Powers to enter upon another Peace Conference had taken definite shape. They are parts of a scheme which seems to have been forming in the ambitious and comprehensive intellect of the American statesman. It is the big stick in a different form from that in which it presents itself to the indignant Democratic imagination—the truncheon of the policeman, not the bludgeon of the swashbuckler.

American opinion is undergoing a gradual evolution on these subjects, of which a stage is marked by the voting for the Electoral Colleges. On the one hand, by temperament and tradition, the people of the United States are eminently conservative in foreign affairs. They are easily moved by bluster and patriotic jingoism, especially at elections; and at a time, not distant, though happily now past, they rather enjoyed the sport of twisting the lion's tail. But the great steady-going mass of middle-class people, mostly of Anglo-Saxon descent, who are the real rulers of the conglomerate nationality, have been brought up to a rooted belief in American political isolation. They would fight at any time to keep European aggression out of the two Americas; but, apart from this, they have a deep distrust of mixing themselves up with the tangled politics of the older nations. They have always endeavored to persuade themselves that America was a separate *enclave*, and that it could survey the wars and diplomacies of Europe and Asia with serene indifference, listening unmoved to the far-off echoes of strife that rolled faintly across the Atlantic and the Pacific. But times have changed. For political purposes the Ocean has narrowed to a stream. The United States is itself a country with foreign dependencies, and in the Philippines it has its finger close to the throbbing pulse of Asia. It has ceased to be self-contained and self-dependent. With a gigantic export trade, still growing, which may presently be as large as that of all Europe, it cannot be indifferent to the political conditions of those vast reservoirs of humanity in which it must find its markets. Its citizens begin to discern the close relation between international politics and international trade; and they are learning the lesson, mastered so reluctantly by ourselves through the troubled centuries, that no community, however great and however powerful, can release itself from the play of the forces that hold the peoples of this planet together or apart.

This truth is being brought slowly home to the American intelligence; but it is received doubtfully, and with more anxiety than en-

thusiasm. The Anglo-Saxon, *utriusque juris,* is essentially an isolation-loving, individualistic, person, whose aim is to "keep himself to himself," and to meddle with nobody who does not meddle with him. He likes to get behind a ring-fence, when he can. In that umbrageous heart of Sussex, where so much of immemorial antiquity still lingers, you may sometimes find an ancient farm, spaced off from the whispering woodlands by a broad belt of untilled pasture. It is the *mark* of the primitive hamlet community, founded some thirteen centuries ago by a family of Teutonic or Scandinavian Colonists. Here they settled, these pioneers from beyond the Northern Sea; they built their dwelling-houses, their graneries, their cattle-byres; and round the whole they drew their *tun* or zareeba-like hedge of thorn and box, girt by the wide zone of rough grass and weed, that islanded them from an intrusive world.

The characteristic has survived through the ages. In national, as well as domestic, affairs, non-intervention, *laissez-faire,* the policy of letting alone, and individual effort, are the aims of the race. They are aims which have been frustrated from generation to generation, constantly abandoned in practice, yet perpetually asserted in theory. There is some truth in the reproach of foreign critics that we have gone about the earth, interfering with everybody, and protesting all the while that we only wanted to be allowed to get on with our own business and had no concern with other people's quarrels. But the fact is that almost every great English statesman and ruler, while genuinely anxious to limit the sphere of British activity abroad, has found himself compelled to enlarge it. A great nation is irresistibly drawn into the cosmic states-system, and must play its part there, if it would maintain its dignity and safety. China lies at the mercy of foreign aggression, as the penalty for living too long in a world of its own.

Mr. Roosevelt was among the first of distinguished American public men to understand the application of these facts to the United States. Several years ago he put the case boldly:

"We cannot be huddled within our own borders and avow ourselves merely an assemblage of well-to-do hucksters, who care nothing for what happens beyond. Such a policy would defeat even its own end; for as the nations grow to have ever wider and wider interests, and are brought into closer and closer contact, if we are to hold our own in the struggle for naval and commercial supremacy, we must build up our power without our own borders. We must build the Isthmian canal, and we must grasp the points of vantage, which will enable us to have our say in deciding the destiny of the oceans of the East and West."

He has gone even further. He has thrust aside the plea of non-interference, of cosmopolitan quietism, and preached openly the doctrine which Rudyard Kipling has thrown into verse. Mr. Roosevelt is quite willing to "take up the White Man's burden." He has disclaimed all sympathy with that "mock humanitarinism which would prevent the great, free, liberty and order-loving races of the earth from doing their duty in the world's waste places, because there must needs be some rough surgery at first." His general view is that "it is for the interests of mankind to have the higher, supplant the lower, life."

In the first instance, the founders of the new American Imperalism were content with the Spanish islands. The Americans are in the Philippines on much the same moral title as ourselves in Egypt. They blundered in, under a sudden pressure of events, not very clearly seeing what they were doing, not at all anxious to make a conquest; and, having pushed themselves into the country, and rendered themselves responsible for its future, just as we have done in Egypt, they have to remain; and not only that, but they must remain under conditions, which will insure that the Filipinos do not relapse into anarchy or barbarism or mediæval, priest-ridden, stagnation. The group must become an integral part of the modern civilized world. It was one of the weaknesses of the Democrats at the recent election that they would not frankly accept the situation. They fenced with it, in their Convention programme, in a fashion at once maladroit and disingenuous:

"We oppose, as fervently as did George Washington himself, an indefinite, irresponsible, discretionary and vague absolutism and a policy of colonial exploitation, no matter where or by whom invoked or exercised. . . Wherever there may exist a people incapable of being governed under American laws, in consonance with the American Constitution, that people ought not to be a part of the American domain. We insist that we ought to do for the Filipinos what we have already done for the Cubans, and it is our duty to make that promise now; and, upon suitable guarantees of protection to citizens of our own, and other countries, resident there at the time of our withdrawal, set the Filipino people upon their feet, free and independent to work out their own destiny."

This passage bears a rather curious resemblance to the woolly declarations of some prominent English Liberals during the first three or four years of our occupation of Egypt. The "Policy of Scuttle," as it was sometimes called, was greatly disliked in England, and it is no more popular in the United States. Sensible Americans know that

the assertion of it is both undignified and meaningless. It would be cowardly to run away from the Philippines, and it would also be impossible. If the Democrats came in, they would not be able to "set the Filipino people upon their feet, free and independent," and they could not attempt to do it. The electors wisely preferred a statesman, who does not make these ridiculous pretences, and who regards the possession of the over-sea territories, not as a disagreeable burden, to be dropped as soon as circumstances allow, but as an honorable obligation, to be discharged with zeal and fidelity.

But the Imperalist appetite *vient en mangeant;* the scope of Imperialist activity widens with each fresh accession. There is no help for it, and so the Americans are beginning to understand, with mingled elation and apprehension. They are now a Colonial Power, with special interests in the freedom of the seas, in addition to that of having more cargoes afloat upon it than any other people except ourselves. Therefore anything that interferes with the even flow of maritime commerce touches them closely. The United States is the natural chief and champion of neutral nations in time of war; for its gigantic export and import trade is still to a great extent carried in neutral bottoms. It is not possible for the Americans to survey a conflict on the seas, between two or more of the Naval Powers, with indifference. The Russians entered upon their war against Japan with the tranquil confidence that they would be permitted to practice the kind of nautical highway robbery, more or less recognized in the chaotic muddle of precedents and principles, which is dignified by the name of International Law. They have had to be reminded that this was an error, and to discover that the "rights" of a belligerent do not include the right to steal and the right to commit assault with violence.

We have done something ourselves, as in the case of the *Peterburg* and the *Smolensk,* to enforce the lesson! but we have moved tentatively and timidly, and with an evident desire not to raise fundamental questions. For, to speak plainly, the bullying code which the Russians are trying to apply is largely of our creation; the "Right of Search," with its confiscatory provisions, is very dear to our statesmen. They are still convinced that, if ever we come to a maritime war, we shall continue to be, in the strategic sense, the aggressors; that we shall be able to take the offensive with the old swaggering superiority; that with our commanding force we shall seal up and blockade all the coasts of our enemy; and that one of our main duties will be to chastise the neutrals who seek to bring him aid and comfort. We suppose ourselves to represent the overwhelming navy that can sweep

the seas clear for our own commerce, with little interest in neutrals beyond that of seeing that they do not annoy us or interfere with our operations. Our traditional policy is to vindicate the claims of the maritime belligerent to do very much as he pleases, or as he can. So we have felt a little awkwardness in explaining to Russia that these examinations, and overhaulings, and visitations, and condemnations, though we practiced them ourselves industriously in the days of sailing frigates and corvettes, are no longer tolerable.

The opportunity of performing this service to civilized humanity lies with the United States; and it seems that President Roosevelt and his able Secretary of State do not propose to miss it. Mr. Hay's Note, protesting against the Russian seizures of neutral vessels, is in some sense the beginning of an epoch. It is the most vigorous and direct assertion of the rights of neutrals which has been formulated for many years. The State Secretary emphatically refuses to admit the extravagant pretension that Russia, or any other Power, can add fresh articles to the Law of Nations by issuing a proclamation or obtaining a "decision" in one of its own prize courts; he repudiates the extensions which it has been sought to give to the doctrine of conditional contraband, and the claim which Russia has set up to establish a kind of paper blockade of the trade routes of the world. The protest has had its effect. Russia, after some demur, was forced to abandon her extreme claims, and to place the question of conditional contraband on a footing which will at least relieve neutral shipping from a repetition of the series of threatening incidents that occurred during the opening months of the war.

But Mr. Roosevelt does not intend to stop at this point. He aspires to protect trading nations from similar dangers in future. Hence his invitation to the Powers to combine in another Hague Conference. When we consider the traditions of American diplomacy, the standing dislike of the people of the Republic to go out of their way to court foreign complications, and their anxiety to avoid being involved in the mesh of European politics, this bold initiative must be deemed extremely remarkable. It might well be regarded as a new stage in the history of the United States, perhaps even the history of the world; provided, of course, that it is followed up. Some shrewd observer tells us that it was mere playing to the American peace gallery, and it was "good politics" for the President to counter the accusation of being a fire eater and a militarist by coming forward as the promoter of international concord. One cannot think so. In the first place, it is not Mr. Roosevelt's way; in the second, it would seem that, having committed himself to this Conference, he would not care

to incur the discredit of a fiasco. To the final "Act" of the Hague Convention, various pious opinions were added as a postscript. One of these was that a Conference "in the near future" should consider the rights and duties of neutrals, and another, that it should discuss the inviolability of private property at sea. On this last point, official American opinion may be said to be committed. The President, in his Message to Congress a year ago, registered his adhesion to "this humane and beneficent principle," and he has been supported by Resolutions in both the House of Representatives and the Senate. It will not be the fault of the American State Department if the Conference separates without coming to an agreement on such a revision and definition of the rules of International Law as will safe-guard neutral sea-borne commerce in time of war.

Whether this result is reached depends, to a large extent, upon the government and people of this country. In the last number of this Review, Sir John Macdonell* shows that it is high time for us to reconsider our established policy in this respect. The statements of Lord Lansdowne and Mr. Balfour at the close of last Session, and the whole course of our recent diplomacy, demonstrate that tenderness towards belligerents, and harshness towards neutrals still determine our attitude. But, as Sir John explains, this sentiment is a little out of date. It takes no account of the changed conditions of the past few years. It assumes, not only that we are the first of Naval Powers, but that our former predominance can be maintained. When we were searching cargoes in the Baltic in defiance of the Armed Neutrality, or when we seized the whole Danish Fleet and brought it captive into the Channel, we had enemies but no real rival. And from the peace of 1815 until the later seventies there was only one foreign fleet, or at the most two, worth talking about in relation to our own.

All this is now changed. There are seven great Naval Powers in Europe, Asia, and America. One of these, the United States, will, in a few years, possess a maritime force not very far behind ours; it has a much larger taxable population, a greater iron and steel production, a longer coast-line on two oceans, more available wealth, and less occasion to expend its resources on military establishments. Some of the same considerations apply to Germany; with a great mercantile shipping, a numerous coastal population, a vast metal industry and unbounded enterprise and ambition, it may provide itself with a navy nearer to ours than any that has been

*"The Rights and Duties of Neutrals," in *The Nineteenth Century and After* for November, 1904.

known since Trafalgar. And not far below these will follow France, Japan, Russia, all first-class Naval Powers; not to mention Italy, and quite possibly, at no very distant date, China. We may, and must, keep the first place. But we shall sweep the seas as if no other flag existed. And if we endeavored to enforce the system which Lord Stowell crystallised in his prize-courts, and which Russia has been endeavoring to apply, we might find ourselves faced by a much more formidable combination than any we could possibly have encountered a hundred years, or even thirty years, ago. Meanwhile we do the chief carrying trade of the world; and any belligerent, as this Eastern war has shown, who begins to exercise the Right of Search, is likely to harass and injure a dozen British merchants for every one belonging to a foreign nation. In other words, our interests are now on the side of the neutrals, not against them. Are we to repeat our *non possumus* of Brussels in 1874 and The Hague of 1899, and declare that we cannot discuss the subject, for fear that the liberty of our captains and admirals might be unduly hampered in war time? Or shall we join with the United States in securing the rights of private traders and putting an end to the oppressive practices that have come down from a period when there was no law of the sea but that of the bigger crew and the heavier gun? If we accept the latter alternative, most of the Continental Powers would probably do the same; it would not greatly matter if they did not. The Anglo-Saxon navies could enforce the law of the sea against all the world, if they chose.

The mere suggestion that the armed force of the two English-speaking nations could be employed for such purposes would be indignantly repelled by many Americans. It is none of our business, they would say, to police the universe or to act as guardians of the rights of humanity. The task may be a noble one, but it is not cast upon us. We prefer to look after our own affairs, and to defend our own interests when they are directly attacked. It remains to be seen whether President Roosevelt will be able, or willing, to convince his countrymen that mere immobility and passivity may sometimes be as bad a defence in peace as in war. A strong initiative is often necessary. Mr. Roosevelt and his Cabinet have themselves taken it very boldly, and perhaps rather unscrupulously, in Panama, energetically enough against Turkey and Morocco, somewhat more cautiously, but with firmness, in regard to Manchuria. So far they have received the undoubted support of their fellow-citizens. The Democrats made nothing out of their impeachment of the President on these points. A few years ago they would have been more successful. The caution, the provincialism, of the great mass of the sober stay-at-home electors,

would have been alarmed at these adventures. The Democratic candidate, on this occasion, preached to deaf ears, when he denounced the abandonment of the non-intervention policy, the dangerous exploring of "untried paths," the following of new ideals, which appealed to ambition and the imagination. "It is essential more than ever to adhere strictly to the traditional policy of the country as formulated by its first President, to invite friendly relations with all nations, while avoiding entangling alliances with any."

Entangling alliances! It is a good phrase, a phrase not unknown to our own political controversy. It has a congenial sound, as I have said, to the Anglo-Saxon householder, who does not want to "entangle" himself with any strange persons, if he can help it. But sometimes he cannot help it, unless he is to suffer various inconveniences. Is it a certain consciousness of this truth, which renders Americans much more tolerant of President Roosevelt's spirited foreign policy, and much more impervious to the Democratic invocations of the ancient idols, than they otherwise might be? The feeling, to which Mr. Roosevelt appeals, is a little vague, and not clearly articulate at present; but it is gathering force, as these movements do in America, and it may come to be held, by large numbers of people, with something like the passionate intensity with which the people of New England repudiated the Slave Power. There is a growing conviction that war is simply a survival of obsolete barbarism, a nuisance and a danger to civilization at large, and that it may become part of the "White Man's burden" to sit down on the thing altogether, or at least to see that it is kept within bounds.

As practical men, American statesmen are aware that neither peace conferences, nor treaties of arbitration will carry us very far towards the goal. Every law implies what the jurists used to call a sanction—the knowledge that it is laid down by a superior power, which in the last resort is prepared to enforce it. International Law has no sanction; and that is why it is not law at all, but only custom and vaguely established practice, which nations will follow no longer than it suits them to do so. We want not merely a tribunal, but a policeman—a policeman with a big stick. And we should get our international guardian of the peace, if the pacific industrial communities, having first thoroughly armed themselves, were to make it known that any disturbance of the public order, any wanton aggression or violence, would be repressed by the strong hand: that any two peoples who had a quarrel, which could not be settled by mutual agreement, would be required to submit the dispute to the decision, not of force but of a properly constituted court of arbitration.

That is the ideal. It may never be reached; but the only way to approach it is by binding alliances between great Powers, or an efficient majority of them, willing and able to "levy execution," if necessary, upon offenders. The two European alliances, that of the central States on the one hand, and that of France and Russia on the other, have undoubtedly served the purpose of keeping the Continent at peace by rendering war too dangerous. Is it fantastic to hope that the precedent might be applied on a wider stage, and with less doubtful motives? Supposing that Great Britain and the United States entered into an agreement to employ their splendid navies, their immense moral and material force, for certain common beneficial objects? They would not, in the first instance, look for anything so utopian as the repression of all international hostilities. But they might aim at securing two things: first, that a war, if it did break out, should be "localized" and confined to the parties directly concerned; secondly, that in any case the freedom of the seas should be maintained, and neutral commerce protected. Such a League of Peace would almost certainly be joined by Japan, probably by Italy, possibly by France. In the end it might include Russia and Germany as well, and so bring about that "Areopagus" of the nations, which may eventually substitute the Rule of Law for the Rule of Might in international politics.

The establishment of any pact of this nature would be a delicate, a difficult, and, in some ways, a perilous, enterprise; for, if hastily or clumsily attempted, it might make matters worse and precipitate the conflicts it is designed to avert. But if a beginning is to be made, it would seem that it can come more easily from the United States than from any other Power; since the Washington Government can take the initiative without incurring the immediate dangers, or provoking the animosities, which must beset any other Foreign Office. Mr. Roosevelt will be a bold man if he sets himself seriously to overcome the preposession of his countrymen for isolation and conservatism in external affairs. But the President has never lacked courage and ambition; and much more surprising things might happen than that the foundations should be laid of a League of Peace, based on a genuine and effective Anglo-Saxon Alliance, before it is time for him to quit the Executive Mansion.

SIDNEY LOW.

LAND HO!

FROM many a morn to morn
  Hath the world rolled wearily on;
We have wistfully gazed o'er the waves forlorn
  Till the hope in our eyes grows wan;
When hark! to the "Land, ho!" hark!
  As the topmast-head lookout,
'Twixt light and dark, like a mounted lark,
  Makes song of his ringing shout.

"Land!" Like a trumpet bold
  O'er the field of the deep 'tis pealed.
Lo! the Field of the Cloth of Gold,
  With the sun as a royal shield!
And the ocean's chargers prance,
  And the King rides forth, and fine
Is his jubilant glance on his own keen lance
  And on broken helms of brine.

"Land!" Like a cloud it soars
  Up from the summer deep,—
A cloud that breaks into silver shores
  And Neversink's wooded sweep;
And the sailor-boy's heart is light,
  And he shouts to the shouting breeze.
Ah! inland quite is that Vale of Delight,
  But he sees his home in the trees.

Laugh out of thine argent lids,
  O Day, with thy deep-blue eyes!
We have builded up white sail-pyramids
  To thee in thy windy skies.
But Hope can mount still higher,
  And Love flies on before;
For wings of fire hath the soul's desire
  In sight of its native shore.

By the late WILLIAM GIBSON,
Commander U. S. Navy.

HANNIBAL.

"He, above the rest
In shape and nature proudly eminent,
Stood like a tower."

MILTON.

HAMLET, that inexhaustible mine of apt quotations, furnishes two lines which are more appropriate to the great Carthaginian here than to any other of whom we have authentic information:

"He was a man, take him for all in all,
I shall not look upon his like again."

Substitute for the personal pronoun the phrase "the world," and nothing could be more apposite than this couplet. This "little world of man" can never hope to look upon another Hannibal, because the circumstances and the times in which he appeared and shone are unsusceptible of repetition. Things would have to be resolved back almost into their original chaos or elements before an equal greatness could again become so eminent. He was the grand product of his times,—times not so greatly altered in spite of the vast advance made between the "Dark Ages" which plunged everything back almost into primeval darkness and the "*Renaissance,*" until the present, with steam augmenting a thousand-fold the means of transport, and electricity annihilating space in the transmission of intelligence. Shakespeare was indulging the "fine phrenzy" of a poet when he placed in the mouth of Puck the promise and the boast,—

"I'll put a girdle round about the earth
In forty minutes."

The electric telegraph laughs at this, its speed so far surpasses the celerity of the goblin fairy, Oberon's messenger.

Had the Romans possessed any method of telegraphic communication, even the incomprehensible gift of our Western Indians,† they

†It is said that the Indian method of transmitting intelligence consists of a system of signals based on flashes thrown by mirrors or polished surfaces held in the hollow of the hand and exposed to the sun. If Ossian's poems are authentic, this system of telegraphing by means of heliotropes is at least fifteen hundred

could have anticipated Hannibal's marches and manœvres, and rendered them impossible. Had they enjoyed the uses of steam they could have transported armies by sea from one point to another, so as either by the selection of positions or the accumulation of forces to block his routes or crush him. Indeed, it was through the latter proceeding that Hasdrubal was overwhelmed and a period put to Hannibal's triumphs, but not to his victories.

Who was this Hannibal? History answers a Carthaginian, but there she pauses and makes no revelations of his ethnological origin or blood. Was he a Shemite,—another, while a heathen, Joshua, a second irresistible warrior of kindred blood or origin? No portrait exists of him, and a bust furnishes no true data as to complexion or the color of the eyes and hair and the peculiarities of the latter, which distinguish race as much as any other feature. The founders of Carthage were undoubtedly Phœnicians, that is, Semitic; but then it is well known that the city of Dido was a grand commercial centre. A maritime metropolis involves inevitably a mixed population. Carthage was founded B. C. 878; Hannibal was born B. C. 247. Between these dates over six centuries had elapsed. What kind of a population will the great maritime metropolis of America possess between immigration, adoption, and miscegenation, in such a lapse of time? It will be an "*olla podrida*" of bloods. Just such was Carthage. Hannibal had many of the distinguishing marks of an African; not negro in the repulsive sense, for "there are negroes and negroes," and as many varieties among them as differences of color and intelligence. One thing is certain; if he did not have woolly hair, he had close, curling, crispy hair. His family was distinguished. He was the heir to everything involved in the term "position," and the ability and influence of a race of magistrates and heroes, "*noblesse de robe et de l'epee.* His father was the illustrious Hamilcar Barcus, the latter a pseudonym, signifying "lightning," or the "thunderbolt." His own name means "Grace of Baal," the supreme God. Taking the word "grace" in its widest and grandest signification, it expresses excel-

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years old, for it is alluded to in the Erse manuscripts, which certainly go back to A. D. 287, when the Hollando-British-Roman Emperor Carausius (the Carus of Ossian) made his campaign in Scotland, and built that wonderful monument recently destroyed by an act of vandalism on the banks of the Carron—from a foundry on the shore of which the naval carronade takes its name.

This is the passage in Ossian alluded to:

> "High on Cromla's side he sat
> Waving the lightning of his sword,
> And as he wav'd we mov'd."

lence, divine influence, a superlative gift. Bearing in mind the characteristics imputed to Baal, and the ignorance of the Phœnicians as to the grandest attributes of the Diety of the Bible, no human being ever deserved more truly the title of "the grace of the deity" he adored—"the favorite of the supreme Punic god, the Fortune-bringer" —than the child who, at nine years of age, swore upon the altar of Baal eternal hatred to Rome, and for a subsequent period of over a quarter of a century of constant and most terrible war, in fact, throughout his life, for sixty years, was the terror of the Romans, "the conquerors of the world."

Three great captains have been assigned to antiquity—Alexander, Hannibal and Cæsar; three to modern times,—Gustavus Adolphus, Frederic, and Napoleon. This is a very arbitrary and restricted catalogue. There were many others known entitled to stand on an equal plane with these, and, doubtless, very many that are not generally known, besides those recognized by the critical and learned few. For extent of conquest Alexander does not surpass Sesostris, Ramises II. There are several Romans who handled armies as well as Cæsar. Gustavus, as a general, was exceeded by his own pupils, especially Torstenson, to whom the epithet of *"Lightning"* was applied,—one common to Hamilcar: (*"Barcas"*), Bajazet (*"Ilderim"*), the lion-hearted son of the strong tower of the Thunder God (*"Blixten"*), and Nelson (*"Bronte"*).

Frederic, the greatest of all on a restricted theatre, is the *"unique"* (*der Einzige*), as his people hail him, but his wonderful achievements were altogether in the desperate defensive-aggressive. Napoleon is a myth, wonderful alone in his strategy, wherein he pairs off with Alexander. As a grand soldier or captain he is not superior to "the world's victor's victor," Wellington, and, stripped of his imperial plumage, wickedness, and sceptre, is not a more striking example of the power of mind in the individual than Marlborough. So great was the last esteemed by Napoleon that he had a history written of "the handsome Englishman's" campaigns and published by the Imperial Press for the benefit of his armies.

As Alexander preceded Hannibal, he could have expressed no opinion of the latter. Cæsar certainly would find nothing good to say of Rome's greatest enemy, so fearfully misrepresented by all Latin historians. Gustavus Adolphus left no gossipy memoirs. Men were not interviewed in his days.

What did Frederic say?

Napoleon was profuse in his admiration for the genius of Hannibal. "That man," said he, "the most audacious of all, the most as-

tonishing, perhaps; so bold, so *sure*, so comprehensive in all things, who, at the age of twenty-six, conceives that which is hardly conceivable, executes that which might be considered impossible; who, renouncing every communication with his country, traverses inimical or unknown nations which must be assailed and conquered, scales the Pyrenees and the Alps, supposed to be insurmountable, and only descends into Italy, that, by the sacrifice of the half of his army, he may obtain the simple acquisition of his chosen field of battle, the sole right to fight; who occupies, traverses, and governs this same Italy during sixteen years, brings that terrible and dreaded Rome several times to the brink of destruction, and only abandons his prey when the Romans had learned to profit by the lesson which he had taught them, to go and fight him at home,—'to carry the war into Africa.' "*

It would seem hardly possible to utter higher praise than this, and yet it is below the deserts of him of whom it is spoken. Napoleon's conqueror (Wellington), when asked by Lord Ellesmere, "Whom he considered on the whole the greatest soldier on record?" answered him and others who propounded the same question, "Hannibal." This opinion of the "Iron Duke" was more comprehensive, as well as correct.

What is strategy? The perfect understanding of the whole theatre of war, its key-points, the objectives, whether this theatre embraces a province, a kingdom, or a continent. It is claimed for Alexander that in Macedon he discerned how and where he must strike for the dominion of the East. Unquestionably he must have derived immense advantages from the travels, explorations, studies, and information of Greeks. They had penetrated wherever he could expect to go or be compelled by force of circumstances to proceed. He had a sure eye. But how much was due to Philip, who made the magnificent army and trained the excellent lieutenants at the disposal of Alexander, is not and never can be known. A remarkable book (Gil-

*Whoever studies history closely must every day recognize more clearly the truth of Wordsworth's expression,—

"The world knows nothing of its greatest men."

Memnon, the Rhodian, gave the same strategic counsel when Alexander invaded Asia as that upon which Hannibal acted when he carried the war into Italy, Scipio when he carried the war into Africa, and Napoleon when he imitated Hannibal. Memnon advised the satraps, or generals, of Darius to lay waste the country before the Greeks, burning all the cities, and fall back on stronger positions; or, as Diodorus says, to take ship at once, embark all the troops of the great king, and transfer the war at once into Macedonia. Both counsels, but especially the latter plan, if Memnon conceived the plan, would stamp him as one of the soundest strategists in all military history.

lies's) has been written to transfer a great deal, if not the greatest share, of the glory of the son to the credit of the father. Concede, however, to the latter all that is attributed to him; still, his preceptor was Aristotle, who embodied pretty much all the reasonable knowledge of his day; his subjects were Greeks, likewise his generals and his troops. He had, for their numbers, the best soldiers in the world, and the hitherto invincible phalanx.

Hannibal was a Phœnician, and the language of his country so restricted that it may be said that scarcely a specimen of its literature exists. Of the outlines of the coasts of the Mediteranean his compatriots knew much. Of the interior of the adjacent countries (Spain, perhaps, excepted), little or nothing. Its army was a mosaic of tribes and nations,—some subjects, some mercenaries, some allies, some adventurers. His camp was "a Babel." It is not absolutely certain that he spoke Greek. He had to communicate with his soldiers through interpreters. Nevertheless, just as clearly as Alexander saw through the medium of others the strategical vitals of the great Asiatic monarchy, Hannibal perceived through his own vision the breach through which he could enter the sacred precincts of Rome. The passage of a narrow sea, and a march through highly-civilized communities which could furnish everything that he needed, brought Alexander at once in contact with his enemy. He acquired strength as he advanced. His first victory was almost decisive of the event.

How was it with Hannibal? In the beginning he had to make his army. Then he had to train it. He was twenty-two when he assumed a general's command as a "general of cavalry," the Arm whose scope and power he comprehended so perfectly and applied so triumphantly. He was twenty-five when he inherited (so to speak) the supreme direction. His first exploit was a siege, one of the most memorable in history. Saguntum taken, thence he saw his way clear to his objective. But between him and it lay no short transit and no beaten road. No civilization intervened, but a march of nearly six hundred miles, as the crow flies, through barbarous foes and unknown dangers. He could count on no certain supplies along the route. Besides this, he had to cross two of the loftiest chains of mountains in the known world, and one of its swiftest and greatest rivers.

Advancing, Alexander grew in strength. Hannibal's numbers were thrice depleted to the extent of half their available force. He had to dispatch a large army to secure the safety of Carthage,—secure it not only against the Romans, but against its own mercenaries and neighbors,—and detach a larger army under his brother Hasdrubal to maintain his hold upon Spain, always uncertain, never utterly

reliable. To demonstrate the perils he left behind, it should be borne in mind that this was exactly the plan of Austria before its partial dismemberment, holding Italy with Croats, Tzechs, and Magyars, Hungary with Italians; in fact, all doubtful districts with antagonistic races or faithful Austrians proper. Thus, Hannibal sent Spaniards to watch Carthage, and brought Africans to take care of Spain, both at once serving as hostages and soldiers. Astute policy, but what a revelation of the inherent weakness of Carthage and the consolidated power of Rome! When he reached the Pyrenees he dropped out forty-three thousand doubtful, and with only fifty thousand infantry, nine thousand cavalry, and thirty-seven elephants, he traversed Gaul, deceived the ablest Roman generals watching his every movement, crossed the Rhone, fought his way across the Alps, triumphed over nature, conquered the bold and hardy mountaineers who disputed every defensible point, and descended into Italy. Marvel of marvels! Fact undisputed and unparalleled, he encamped upon the plains drained by the Po with a remnant of about twenty-thousand infantry —of whom twelve thousand were Africans and about eight thousand, the best, were Spaniards—and six thousand cavalry to assail a power which could put seven hundred and sixty-eight thousand (I. ii. 161) more or less trained soldiers in line of battle. To compare the passage of Alps by Napoleon, in 1880, with that of Hannibal, B.C. 218, is to contrast a pyramid with the highest peak of the Himalayas. Let any competent judge weigh the strategy of Alexander or of Napoleon, under existing circumstances, with that of Hannibal, and the conception of either of the two former is a mere application of knowledge to known conditions when contrasted with that of the latter, which was military genius in the grandest and vastest and truest signification of the gift.

Drop the parallelism with Alexander and Napoleon and consider another,—with Cæsar. Cæsar tells his own story. Hannibal had almost his whole story told by enemies. Cæsar, with the best troops of his day, perfect in tactics, equipments, everything connected with the art and science of war, encountered barbarians almost as deficient in means as his army was perfect. No comparison can be instituted except in bravery. Cæsar conquered Gaul. Did he conquer the country which is now known as the kingdom of the Netherlands? He says he did. This is very doubtful. It is still more doubtful if he was not worsted in Britain; that he was not glad to quit the island while he could still extricate himself with a *show* of success. He did not make his army. It had been made by centuries of adoption, adaptation, training. Vegetius says that "the tactics of the Romans must have

been the direct inspiration of a God." The Legion was the perfection of ancient organization, of the highest application of armed force by the most military experts through centuries. It outlasted as a successful war-engine the very manliness of the race that conceived it. The name and the form existed as a terror when the soul had departed. Cæsar's army was homogeneous. Every man who fought under his standards "touched elbow" through brotherhood, language, discipline, and patriotism. The army of Hannibal was heterogeneous to a degree without a precedent and without a subsequent example. Of the army which he made and led out of Spain more than one-half had perished before it encountered the enemy it set out to meet It had to be remade again and again under the eyes and the missiles of his antagonists. He had to reconstitute it out of the most discordant materials, not once, but almost as many times as he remained years—sixteen (B.C. 218-203)—on foeman's soil. He had to capture the weapons with which he re-armed it. He had to assimilate his tactics to the weapons he wrenched from the slaughtered and the captured. Without magazines, he had to feed the troops which annihilated army after army, fed and supplied from magazines and arsenals at hand, and a remoter invulnerable centre. The blood of the Romans that he slew was sufficient to have drowned out the comparative handfuls that slaughtered if there had been no conduits to lead off the blood. I here say that "the Romans must have lost in Italy alone one hundred and twenty-thousand men actually slain or taken prisoners (of the latter very few were suffered to live), without reckoning those who succumbed to disease and the fatigues and privations of the prolonged campaigns" of (B.C. 218-216) "hardly two years." According to a comparative military medical calculation the war had cost of Romans twelve to twenty times as many citizens as Hannibal led soldiers into Italy. "We may certainly assume (Ihne, 1871, ii. 473) that the Hannibalian war cost Italy a million of lives." Nevertheless, Hannibal for over sixteen years ranged through Italy without losing a battle, triumphant on every stricken field, and left it only in obedience to the summons of his native country, master of the ground he occupied until his last man had entered the boats which were to convey them to the homeward-bound transports. And yet through all the vicissitudes, the strain, the privations, the desperate circumstances, at times the very despair of these sixteen or seventeen unparalleled years; amid these continually renewed hosts of strangers, unsympathetic, devoid of all ties of patriotism, speaking unknown tongues to their chief and to each other, there never was a hand raised against Hannibal. His foulest enemies admit this fact. There were conspir-

acies against Alexander and against Napoleon. Conspirators slew Cæsar. Traitors manifested themselves among the very ones delivered by Frederic. According to Oxenstiern a traitor killed Gustavus. And yet among the unreliable Spaniards, the fickle Gauls, the wild Numidians, the incoherent tribes of Italy, the cruel Carthaginians, the one-eyed Hannibal walked and slept and led and directed and enforced a discipline of iron as safely, as beloved, as honored, as obeyed, as if he had been a very god manifesting himself to an adoring multitude of votaries.

It has been charged against him that he failed in sieges. The inexplicable and almost inconceivable will-power and influence of a man, however mighty, is totally inoperative against inert matter. To batter down a wall requires suitable engines. It is not known whether Hannibal brought any of these from Spain. If he had, they were unsusceptible of transport into Italy. If he had brought them to the foot of the Alps, he must have left them there. Always moving and fighting, if he did not drag them along, he had no time to construct them. He had no materials, and no arsenals whence to derive these; no trained mechanics, and no opportunity to train any. The scientific corps of an army are the production of the time and arts of peace. Hannibal's campaigns were perfect realizations of the touching motto of the French soldier in Algiers,—"To fight and to suffer." Sieges require experience, instruction, and science in inferiors. A general can, through himself infused into his army, win a battle. But the power of man ceases when army "material" has to be created and applied by means which do not exist and cannot be evolved by any amount of enthusiasm or heroism. A witty French general (Nansouty?), when blamed for the miserable condition of his cavalry mounts in Russia, answered: "Horses have no patriotism. You cannot appeal to their enthusiasm; they only respond to oats!" No genus to-day can found ordnance! Finally, to dismiss this only objection to Hannibal's supreme genius, let it be borne in mind that a brilliant writer and classical scholar of eminent merit declared that it "seems to be doubtful" "if the Carthaginians knew the use" of military engines; that even if they did, and Hannibal had them in Spain, he "was unable to carry any with him"; and that to his weakness in this Arm the failure of his ultimate attempts against Rome is, I believe, wholly to be attributed.

Or, to make this still clearer, man can overcome his fellow-men, but not nature. Thus, Hannibal, who continued in Italy unconquered for sixteen years (B.C. 218-203), had to succumb to the winter and inundations in the Appenines and Etruria in the winter B.C. 216-17.

In this attempt to relieve Cisalpine Gaul of the burden of supporting his army he lost all his surviving elephants but one, and also one of his own eyes.

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To present a detailed narrative of the various occurrences comprised in the campaigns of Hannibal would require a volume. Suffice it to say that Hannibal moved at pleasure throughout Southern Italy, defeating every Roman general with whom he came in contact, although he only received one reinforcement from Carthage.

The fate of Rome was yet undecided in the eleventh campaign. The scale weighted with its fortunes scarcely maintained the counterpoise against the one charged with the genius of Hannibal. The latter (B.C. 207) was only awaiting the arrival of his brother Hasdrubal to depress the balance forever against Rome. Hasdrubal came, following the Alpine route, which his greater brother had already, to the astonishment of the world, explored. The brothers were never destined to meet in life. On the Metaurus Hasdrubal was overwhelmed, his army destroyed, and himself slain. Creasy considers this conflict the "fourth" of the "fifteen decisive battles of the world," and it is truly worthy of the distinction.

Truth is said to be stranger than fiction, and romance often clothes itself in a costume even less *bizarre* than reality. It was so in this case. Hannibal was near Canusium, not far from the stage of his greatest tactical triumph,—Cannæ. His outposts were in contact with those of the Romans. In front of him was the army of the consul, Nero. Suddenly, just as Torstenson disappeared from before Gallas to dart across Germany to the conquest of Denmark, just so the legions of Nero vanished. They had flown to reinforce the other consul, Livius, two hundred and fifty miles to the northward, on the Metaurus. Hasdrubal recognized the junction by the double consular trumpet signals in the augmented array before him. Supposing that such a reinforcement of the enemy would have been impossible, except that Hannibal had been defeated or slain, he accepted the inevitable compat with a full realization of the impending fatal result, and literally "foremost, fighting, fell."

It is scarcely possible that the light troops, whose efficiency had been of such assistance to Hannibal in his earlier campaigns, could still have been equally reliable if they allowed Nero's legions to vanish thus from before them. Doubtless his Numidian horses had long since perished, and their riders, never recruited, had dwindled in numbers and grown stiff with unremitting labors, diseases, wounds, and the

many hardships of unceasing active service. At all events, the first knowledge of the overthrow of his brother, of his own hopes, and of the supremacy of his country was announced by a brutal act common to Romans, and the very Romans who perpetrated such savageries charged them falsely, upon Hannibal because the cruel always judge their opponents by themselves.

The story of Rome's brutality is variously told. Either the severed head of Hasdrubal was cast down by the Romans before the feet of his great brother's pickets or vedettes, or it was tossed into his lines.

"When Hannibal recognized the bloody head of his brother he foresaw [comprehended or recognized] the fate of Carthage." Arnold remarks on this: "He had not dealt so with the remains of the Roman generals: but of this Nero recked nothing; as indifferent to justice and humanity in his dealings with an enemy as his imperial descendants showed themselves towards Rome and all mankind."

Hannibal now retreated into Bruttium, the foot of the boot to which Italy has been likened, the projection from Tarento towards Otranto constituting the heel. "For four years longer he clung with astounding tenacity to the soil," says Ihne, "and for all this time his name and his unconquered arms continued to strike terror throughout Italy."

It is scarcely possible to convey to modern readers any commensurate idea of such a condition of things. Bruttium is the modern Calabria. It is two hundred miles long, north and south, and except to the north it is surrounded by the sea. It is a peninsula very much like Florida, only less than two-thirds the length of the latter, and whereas Florida is flat, Brittium is exceedingly mountainous.

In order to estimate the immense superiority of Hannibal to his antagonists, let the reader imagine an enemy, under thirty thousand strong in possession of the Eastern Shore of Maryland and the rest of this peninsula (provided it was rugged and mountainous instead of the contrary), and these invaders capable of maintaining themselves for four years against all the neighboring States in next to full possession of the sea. What is more, how long Hannibal could have continued thus to hold out against the whole power of Rome in this single province was never demonstrated, since he abandoned it while his enemies still stood aghast before his mighty presence.

The common world are so incapable of judging of really great men that whoever undertakes to present the simple truth regarding them, to obtain a patient hearing, is compelled to strengthen the simplest narration with the multiplied buttresses of authorities. These, in this

case, might have been piled like Pelion upon Ossa, had space been conceded.

Henry William Herbert was a classical scholar of the highest ability, although he is known to but few otherwise than through his works in the most different lines,—Sporting and Treatise for Sportsmen. He wrote the lives of the "Captains of the Old World," and in that of Hannibal he makes the following observation in this connection: "Before he was recalled to fight at home for the very existence of Carthage, he had maintained himself for seventeen years in the heart of an enemy's country, without reinforcements, supplies, or moneys, except what he took from the enemy; he had traversed and retraversed every portion of the peninsula, from the Po to the Gulf of Tarentum, wasting it with fire and sword at his own will; he had won three pitched battles, which are to this day the admiration of all strategists; he had beaten every force that ever met him in the field; he had never suffered a defeat; and when he withdrew from the shores of Italy, he did so, not that the Romans drove him thence, but that Carthage needed him elsewhere."

Of him might be uttered in its grandest sense the boast which Shakespeare puts in the mouth of Coriolanus:

"False hound!
If you have writ your annals true, 'tis there,
That, like an eagle in a dove-cote, I
Flutter'd your Volscians [Romans] in Corioli [Italy]:
Alone I did it."

* * * * * * * * * * *

A judgment has been attributed to Gustavus Adolphus which was exemplified in the career of Hannibal. "The Swede," "the greatest man of all this modern world," is said to have expressed the opinion that he never wanted to command an army of more than fifty thousand men,—veterans or highly-disciplined troops with good officers,—for three or more reasons: 1st, because with this number he could so manœuvre that no antagonists, however numerous, could force him to fight against his will; 2d, with this force he could select such a position to fight that no ordinary preponderance of numbers could compensate for the advantage of a defensive-aggressive on chosen ground, since an army like the one he mentioned must inevitably comprise inferior troops, which were a detriment rather than a benefit in a vast majority of instances; 3d, it was almost impossible to feed more than fifty thousand,—prior to the introduction of railroads and other recent inventions,—and as "an army goes on its belly," according to

Frederic the Great, the necessity of providing and transporting provisions and ammunition greatly depreciated the mobility, and rendered sudden movements, especially to a distance, impossible.

It is curious to note that neither Gustavus nor his successors ever fought a pitched battle with anything like fifty thousand men. Frederic's greatest victories were achieved with far less than fifty thousand men, and Hannibal had less than thirty thousand at Trebbia, about forty thousand at Thrasymene, and exactly fifty thousand at Cannæ, where, with a loss of six thousand, he slaughtered eighty thousand Romans out of a total of ninety thousand, of whom only a few escaped in any way.

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Although Hannibal was absolutely destroying Italy, the Romans, even under these circumstances, would not have fought the battle of Cannæ if it had not been indispensable. Even then it was precipitated by one of those leaders so greatly admired by the unreflecting masses,—a leader who possesses simply brute courage, and does not fear to risk his own life, and consequently through sheer temerity, is utterly regardless of the lives of those committed to his charge. Varro, the son of a butcher,—by some claimed to have been a butcher himself,—was the sole occasion of this butchery. With all his faults, there was something grand in his destitution of fear. Surviving the catastrophe he had occasioned, he did not lose hope, and is better known, perhaps, through the vote of confidence passed by the Roman Senate than by name or actions. He was thanked because, even after the loss of such a battle as Cannæ,—2d August, B.C. 216,— he "did not despair of the commonwealth." Such confidence in himself and in his nation was the real source of the ultimate triumph of Rome. Colonel von Kausler is perhaps the best authority on the battles of which he has treated in his famous work. He only abates by twenty-eight hundred the ninety thousand Romans generally stated to have taken part in this battle. Of these, eighty thousand were infantry, seventy-two hundred to ten thousand horsemen. No writer ventures to assign to Hannibal more than forty thousand infantry and ten thousand cavalry. Conceding that a legion of this era consisted of five thousand men, Varro drew up his whole infantry—equal to (Macdaugall's Hannibal, p. 8) four consular commands—in a vast column of legions, an enormous block of men, the oldest troops in front, and the newest levies in the rear, with the cavalry on the wings,—the Roman horse, proper, on the right, those of the Latin allies on the left.

Hannibal was as much renowned for his stratagem as for his strategy. Very many people confound the two, but never were their two words of more different primary significations. Strategy carried Hannibal into Italy. Stratagem won almost every one of his successes. The first is science-and-art generalship, the second artifice in all its various tricks and applications. War at best is the devil's game. He is the father of lies, and deception has more to do with success in war than anything else, than its prime necessities—money and men.

Hannibal's plan for bringing on and fighting the battle of Cannæ was nothing more than a series of lesser and greater stratagems. To use a vulgar but pertinent expression, he twisted Varro around his little finger.

So as not to be outflanked by the nearly two to one of the enemy, Hannibal rested either flank on the Anfidus, which here forms quite a bow. Like his adversary, he placed his cavalry on the wings, but he opposed his best and heavy horsemen on his left to the Roman knights constituting their right, and his Numidians and Lybians on his opposite wing—the right—to the inferior cavalry of the Latin allies. His line of battle was remarkable, and hard to explain without a plan. It was concave on the whole, with a convex projection, or bulge, in the centre. He hoped by thus thrusting out his centre he would attract to it the force of the Roman attack, and by concentrating the fighting at his point find in it some compensation for the inferiority of his numbers and the scantiness of his front. The Roman general, Varro, fell completely into the trap. He advanced like a bull against a matador; and with the success of this artifice, founded on Hannibal's comprehension of the stupidity of his adversary, the battle began.

Moderns conceive that all "the pomp and circumstance of glorious war" is the growth of only a comparatively short period. They are greatly mistaken. When the Grecian phalanx moved the field of exercise seemed to be ablaze with crimson and gold, since their uniforms were red and their arms and accoutrements brass or of brazen mounting. Nor was the Roman army less magnificent to look upon; and when, on festivals, the troops took all the coverings off their metal armor, and the sun fell upon the manœuvring masses of spotless steel and brass, they seemed to be moving in the blaze of their own light.

Nor were the Punic arms, attire, and accoutrements less superb and striking. Nicol says of Hannibal's entrance into Capua:

> "Through the shouting streets
> With laurels strewn, the Punic splendor passed;
> All hues and shapes of men and horse attired

In various blazonries—a rainbow thrown
Into a moving mass. The General's guard
Flowed like a stream of gold through ranks of steel:
He, girt by armor-bearers, from his eye
Flung round a lustre making pale the gems
That glittered on his Casque."

Hennebert justifies this imagery, and also Silius Italicus.

There are some magnificent accounts of this battle of Cannæ, but it is impossible to linger upon them. Some features, however, cannot be neglected. Tall plumes rose above the helmets of the Roman infantry, and as their eighty thousand advanced under the August sun it lit up a waving forest of red and black foliage, through which flashed the reflection from a sea of brazen helmets. On the other side, the Spanish veterans were conspicuous in white heavily edged with crimson. The Gallic Celts fought stripped to the waist. Every nationality appeared in its particular fashion, and over all dominated the magnificent Spanish and Gaulish cuirassier-lancers, covered with metal, above them towering their long and massive spears, all of which made them seem like giants upon their powerful chargers. Meanwhile, the famous Numidian horse must have resembeled swarms of barbarians fully as wild as our Western Indians, without the latter's childish display and neglect of the faithful animals that bore them. The Africans, on the contrary, devoted as much (if not more) care to their horses as to themselves. They anointed their wounds and bruises with as much anxiety as their own, and washed them all over after any unusual exertions,—not with the poorest, but with the best and oldest, of the captured wine. The Spanish and Gaulish cuirassier-lanciers, under Hasdrubal, soon disposed of everything in their front, and chased off the Roman knights along the river, following them up till they were almost destroyed. Then they galloped off to the right, to the assistance of the Numidians, who were skirmishing with the horse furnished by the Latin allies. As soon as the cuirassier-lanciers made their appearance these broke in panic and fled. This afforded mere sword's play for the Numidians, and the fugitive cavaliers were soon converted into corpses before their flight had continued any distance.

By this time the Romans supposed that they had forced back Hannibal's centre and pierced his line, whereas it had simply drawn back, in obedience to orders, to entice them the deeper into the snare. All at once, upon order, the Carthaginian centre halted and stood fast, and their brother-warriors on the wings closed in upon the flanks of the Roman column. Thus the Romans, contracted into a seething mass so

close that many must have perished from pressure or been suffocated by the heat and stifling atmosphere, were inclosed on three sides. Recall that it was stated that the poorest of the legionaries were in the rear, and it was upon them that the stormy charge of Hasdrubal's victorious heavy cavalry burst in all its fury. "Then followed a butchery such as has no recorded equal, except the slaughter of the Persians in their camps when the Greeks forced it after the battle of Platæa. Unable to fight or fly, with no quarter asked or given, the Romans and Italians fell before the swords of their enemies, till, when the sun set upon the field, there were left out of that vast multitude no more than three thousand men alive and unwounded, and these fled in straggling parties, under cover of the darkness, and found a refuge in the neighboring towns." Arnold is considered the best authority, and these are his words. Von Kausler states, as the result of the battle, that forty-five thousand foot and three thousand seven hundred horsemen, with one consul, Paulus Æmilius, two quæstors, twenty-one tribunes, and eighty senators, fell on the field. Of the whole of the Roman army only about four thousand escaped. Thus the soldier coincides in effect with the civil historian.

Hannibal did not lose over six thousand, but it was a loss of veterans that nothing could repair.

The cause of this catastrophe, "which brought Rome to the brink of the precipice" of ruin,—the Consul Varro,—as usual with his class, escaped.

Von Kausler attributes the loss of the battle to four causes: (1) Varro's too good opinion of himself and too little of his enemies, whom he foolishly despised on account of their inferiority of number; (2) the ardor with which he thrust himself into the trap which had been set for him, even after his right flank was entirely uncovered by the destruction of the Roman cavalry; (3) the Roman contraction or ployment, which enabled the Carthaginians, although fewer in number by a wider deployment to envelop him; (4) the indefensible order or blunder which caused the Roman cavalry to dismount, whereby they were ruined.

Only one single military reflection will be indulged in. Ought, or ought not, Hannibal to have marched against Rome itself after Cannæ? Perhaps no question on earth has been more ably or frequently debated than this. The language used to him by his general of horse, Maharbal, is not disputed, except as to the words; its purport is conceded. "If," said Maharbal, "you will let me lead the horse forthwith, and follow quickly [*i.e.*,with the infantry],you shall dine on the Capitol in five days."

The vast majority decide that if "the GREATEST CAPTAIN, without exception, whom this world has yet seen, or perhaps ever will see," decided not to march on Rome, "The best cavalry officer of the first cavalry service in the world" was wrong in his advice.

The writer sides with Maharbal.*

If Hannibal had failed then, he would only have forestalled his ultimate failure, and all ages would have applauded such a magnificent attempt, all time endorsed such a heroic decision.

After Leipsic, 1632, Oxenstiern, as sagacious a man and statesman —a soldier likewise of no mean ability—as ever lived, blamed Gustavus Adolphus for not marching straight on Vienna, but the latter, however, full of spirit himself, argued like Hannibal, while his colder-blooded chancellor reasoned like Marharbal. Charles V. blamed Philip II., under similar circumstances, for not marching at once on Paris after St. Quentin, 10th August, 1557,—a victory which originated the Escurial as a memorial.

Charles, Duke of Bourbon, took Rome with his horde of adventurers under more desperate circumstances on the 6th May, 1527.

The Earl of Peterborough captured Barcelona by a similar stroke of daring in September-October, 1705.

Examples might be multiplied. If Napoleon had reasoned like Hannibal, he would not have compelled the Peace of Campo Formio, 1797; Presburg, 1805; or Vienna, 1809.

The principle advocated by Maharbal carried Wellington and Blücher on the wings of the victory of Waterloo to Paris in 1815.

Audacity has achived greater results than all the other human forces, single or combined; and when Danton was asked what alone was necessary to the success of the French republic, he gave the solution in his answer of six words: "Audacity! more Audacity!! still

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*Lanfrey, in his Napoleon I. (v. 21), justly remarks of the Archduke Charles in 1809, after his success on the 21-22 May, which should have inspired him to renewed exertion: "At Essling, the Archduke had re-established himself in his own eyes and those of his [the Austrian] army; but instead of deriving from this success greater confidence and activity to undertake more, he esteemed himself happy in having gained such an advantage over an adversary who inspired him with intense admiration, and he trembled lest he should compromise his success by too much audacity." In Hannibal's case it was not any Roman general or army restrained him, but the indomitable spirit of Rome, as a people.

Scanderbeg spoke in a different but the right key to Huniades, when he said, "It is a bold measure, but Success is the child of Audacity."

How well Shakespeare expresses the danger of irresolution which has slain so many of man's greatest enterprises in the vey conception: "Letting I dare not wait upon I would."

more Audacity!!!" The idea carried the tricolor into almost every capital of continental Europe.

This not marching on Rome after Cannæ seems the only weak spot in the character, and the only injustice to himself in the career, of Hannibal. Arnold as a Christian philosopher, finds the only valid excuse for him: God did not will it to be so! The designs of Providence seemed to require the ultimate triumph of Rome, because the success of Carthage was incompatible with the future stable healthy advancement and development of humanity.

The policy of Carthage was not more intrinsically cruel than that of Rome, but then it was intensely selfish; whereas Roman extension, although scarcely less selfish, was sufficiently politic not to sacrifice everything to Roman aggrandizement without accomplishing a certain diffusion of advantages, without which, humanly speaking, there was no possibility of the rise, increment, and influence of the New Dispensation, which was disseminated along the same routes built to facilitate the march of the legions to universal dominion, which thus unintentionally became the avenues for the conveyance of the glad tidings of the gospel of Everlasting Peace.

The greatness of individuals can only be made clearly apparent to men by presenting comparisons and contrasting their exploits.

Allusion has been made again and again to the six commanders who are, as a rule, assigned to the first class. Of these, the first three, belonging to antiquity, have been justly styled adventures or *condottieri* on the grandest scale. Alexander was a royal "adventurer." Hannibal was a patriotic *condottierie*. Cæsar was a selfish example of the first. Of the three moderns, Gustavus was a patriot, a combination of Judas Maccabeus and Joshua. Frederic was the champion of his country. Napoleon, the modern Attila, another "Scourge of God."

Hannibal accomplished more with less means than either of the other five, and only failed in effecting all that he undertook to accomplish because his means failed. When Ney asked for more cavalry at Waterloo, after those which had been intrusted to him had been wasted on the English "squares," Napoleon cried, "Where am I to get them? Does he expect me to make them?" For Hannibal to have done more than he did he would have had to possess a creative power not only as to men or soldiers, but material and money to buy and maintain both.

Alexander, who started with the reservation to himself and as his sole reward and share of the expected booty the fulfilment of his "Hopes," was the absolute monarch of the first people of the world as

it then was, having at his disposition an army which in preparation, efficiency, and officers was as perfect as the times permitted. Great as the world esteems Alexander to have been, he had a greater father, who had prepared everything to his hand in the same way that the great Egyptian conqueror owed the organization of his army to his parent. Alexander inherited a perfectly homogeneous "armada." He lacked nothing requisite for success. Everything was ready to his hand. He commenced his career as a royal "adventurer" at the age of twenty-one B.C. 335, and it was accomplished in twelve years, B.C.323. He fought with Greeks against barbarians, effeminate inferiors, and for a time a timid adversary. His principal enemies—*i.e.*, the Persians—were nations whom the Greeks despised, whom they had defeated under every disadvantage, ever since, indeed, they came in contact with them, for over two centuries. Even the whole of these twelve years of independent command and conquest were not all truceless wars. There were lulls and pauses.

Julius Cæsar received his first command-in-chief B. C. 59-58, at the age of forty-eight, and was assassinated B. C. 44. His opponents, however brave, were in many cases so badly armed, it is stated, that very often after a Gaul made a heavy stroke with his sword he had to bend down to straighten the blade with his foot before he could repeat the cut. Some of Cæsar's achievements, already in the light of modern critical investigation, are resolving themselves into myths. Moreover, the Gauls, Belgæ, Germans and Britons had no historians; and subsequent times have to rely upon Cæsar's own story. Nothing like the whole of Cæsar's activity as a general, covering a period of fourteen years, was continuous warfare. He enjoyed long and frequent breathing-spells. Remember, he commanded Rome's invincible legions.

Gustavus Adolphus succeeded to the throne in 1611, aged seventeen. He began to fight as soon as he was crowned, and he was killed in battle in 1632. This would apparently give him a military career of about twenty-one years. Of these the world only fixes its attention upon his campaigns in Germany, lasting only a few days over two years and four months. All his first campaigns were directed against semi-barbarians. He made only two against generals of ability. He fought at most, four pitched battles, and he fell in the last, leaving the event undecided. Unlike Alexander and Cæsar, his greatest triumphs were over generals and troops worthy to measure brains and swords with him.

One of the Swedish generalissimos who succeeded him, Torstenson, whose crowning battle has been treated in a former number of

THE UNITED SERVICE,—the pupil of Gustavus, in one sense of the word his rival, of master in another,—is said to have come nearest, of any great captain, of whom there are reliable records, and under every aspect, to Hannibal. Still, although Torstenson displayed first-class talent even while a youth then rising grade by grade, and genius as chief of the new artillery arm, and as second in command, his functions as commander-in-chief of armies, were limited to less than four years, very much resembling, however, even as to details, the best phase of Hannibal's life from the Ticino to Herdonea.

Frederic the Great, take him all in all, and judge him justly, was perhaps the most remarkable king who has ever lived. Like Alexander, he was at once king and commander, his own prime minister,—in fact, his whole ministry combined, "the One" and "the Nonpareil." He underwent about as much rough campaigning as any sovereign who ever united the functions of absolute sovereign, absolute administrator, and absolute general. Nevertheless, although the king fought from the beginning about as one to six, his real fighting did not occupy fully ten of the forty-six years of his reign. He commanded in seventeen pitched battles, and was victorious in eleven; abandoned his first field, and was nearly ruined in two. Several of his victories were certainly equal to the best of Hannibal's. But the Carthaginian never lost a battle in Italy, nor any battle while he had the army he forged and annealed. He lost his last, Zama, but through no error of his own. His instruments were unequal to his requirements, the demands of the hour, and the circumstances. Everything had changed but Hannibal. Frederic overcame difficulties as great as beset Hannibal; but then he was a king fighting on his own soil, backed by a brave and hardy people into whom he had infused his own indomitable spirit. Moreover, his army was superior to that of any other civilized power. Hannibal was neither a king nor independent of home interference. He had a heterogeneous army of mercenaries, to whom he gave better arms and tactics as he won the one and learned the other. He descended into Italy with twenty-six thousand men to encounter Rome, the first war-power of the world, which could place in the field seven hundred and sixty-eight thousand more or less trained citizens fit for military service. Frederic had seaports, fortresses, arsenals, magazines, accumulated funds, and even allies; also food ready to the hand for his men's mouths, and food for the mouths of their guns. Hannibal had neither. All the advantages he possessed were in his own brain and in his own heart, whichever is the seat of capacity and courage. As before said, Frederic underwent more hardships than any other crowned gener-

alissimo, but nothing in comparison to Hannibal, who lost one of his eyes through exposure, and for fifteen years afterwards with such a defective vision, at a time when battles were necessarily under the immediate supervision of the commanding general, continued to

"Ride in the whirlwind and direct the storm."

Napoleon Bonaparte received the command of the army of Italy in February, 1796,—an army which had won at Loano (1795) a victory worthy to rank with his best,—"an army which, to cite a famous comparison, was a weapon that would cut of itself, would cut in any hands." His first phase of command of eighteen months was certainly wonderful, but in the accounts of it there is a great deal of the mythical mingled with the reality. He did not lead, as so often represented, flag in hand, across the bridge of Lodi. He did have moments of utter feebleness. His first peace—Campo Formio—was opportune, and due almost as much, if not more, to the magnanimity of Moreau and of the army of the Rhine as to himself and his own. His second campaign of Egypt and Syria was chiefly against opponents whom it was scarcely any credit for European veterans to conquer. The moment that he ran against brute courage, directed by European science and backed by British civilization, he made a failure, and it was a terrible one. His next campaign—of 1800—was decided by one battle,—Marengo, a victory over the Austrians, whose lot in military history seems that of being beaten when opposed to anything like an equal antagonist. Marengo narrowly shaved a defeat, and was not more brilliant than the Hohenlinden of Moreau, or the Heliopolis of Kleber, or the Trebbia of Hannibal, if, indeed, as glorious. The Carthaginian crossed the Alps to his victory,—a passage to which that of Napoleon's was child's play; yes, child's play even to the simultaneous passage of the Splugen by Macdonald, or that of the Ore Mountains, prior to Janikau, by Torstenson, in the warfare of 1744-45, or to the crossing of the Apennines by Hannibal. B.C., 218.

As yet Napoleon had not, honestly comparing, won a victory to rank with the first three of Hannibal, nor with the Rosbach or the Leuthen of Frederic, and he never did, for he had passed his apogee. In 1804 he became emperor and in 1815 he was sent to St. Helena. Out of these eleven years he was fighting about half the time. Napoleon's campaign of 1805 would have been remarkable against equals, but in this again he was pitted against Austrians under an imbecile. If Austria had backed up Russia, Austerlitz need not have decided the campaign. The humiliation of Prussia in 1806

was due to the senility of its military heads. The decisive share of the twin victory, however, was not won by Napoleon at Jena, but by Davoust at Auerstadt. In 1807 Napoleon was worsted at Eylau and on the brink of ruin, and again after Aspern, in 1809. He lost his army in Russia in 1812; and another army at Leipsic in 1813. In 1814 he first commenced to play the losing game which Frederic played successfully for six years, and Hannibal for fifteen years. In three months Napoleon's fate was settled, and he was sent to Elba. In 1815 he had another chance, with an army certainly as good as he had ever previously led into the field, if it was not better; and even critical military and historical writers are beginning to see that the Waterloo campaign was a blunder as to execution. Napoleon was disastrously defeated on two occasions, twice worsted. Hannibal was never worsted, and never defeated as long as he was on Roman ground at the head of the army he himself had made. Although we have no Carthaginian, no friendly or unbiased account, or even a complete Greek history, even the purely Roman accounts do not demonstrate that any Roman general gained any success in the open field over him on Italian ground. Even the bloody, treacherous Marcellus, the "Sword of Rome," let Hannibal severely alone. As soon as Marcellus came within striking distance he perished. Napoleon, with modern science and artillery, failed in the only siege he ever undertook. Hannibal failed in sieges because he had neither the machines which represented artillery, nor the artificers to construct them; and besides lacked a scientific corps to work them.

Hannibal was not only a great soldier in every branch of the military art and science, but he was a great citizen. He excelled as much in the arts of peace as in the arts of war. He was as marvelous in the Senate and in the city as in the saddle and in the camp; and whether as a general, a statesman, an exile, or a fugitive, he was equally the terror of Rome.

Modern critical historians like Ferguson, Arnold, Michelet, Mommsen, Niebuhr, and Ihne, who have resolved so much of Roman history back into fable which the past generation were taught to believe in inmplicitly as fixed fact, have likewise dispelled the mists of falsehood with which the Romans invested the character and career of their greatest enemy, and revealed both in greater brilliancy. Niebuhr exhausts himself in tender praise, and the Christian historian Arnold attributes the salvation of Rome to Providence alone. Without the direct interposition of Providence he admits that the bloody city must have succumbed to the genius of Hannibal. Nor

is he alone in this view. Various writers come to the same conclusion, with merely a change in their mode of expression.

There was an astuteness, a cunning, or a sagacity about Hannibal which seemed superhuman. Epaminondas won the two victories which have immortalized his name by an application of the same manœuvre in which Frederic excelled. With Frederic it was pretty much the same way. The tactics with which Hannibal won each one of his victories—victories which in succession obliterated an army—were utterly distinct and different. The Trebbia was the fruit of stratagem and consummate comprehension of national character; Thrasymene, of position and natural circumstances; Cannæ, of superlative tactical manœuvre. Such another battle as Cannæ was never fought on the face of this earth, and never, perhaps, will be fought again until another Hannibal arises to make another army capable of putting such ideas as his into execution amid deluges of blood and amid a whirlpool of missiles. There were three phases at Cannæ, all equally well done. Curious to say, our George H. Thomas applied the principle developed in the first at Nashville, and in the third at Mill Spring. There is no second example on record of the successful application of all three combined. Chattanooga, the result of unforseen combinations of accidents, might afford some resemblance if a soldier's mind were applied to the assimilation.

Looking at battles, and weighing one against the other, there are very few which can compare with those won by Hannibal. He never fought one fairly and squarely without eliminating an army from the war problem; and perhaps there never was a commander whose victories were such complete catastrophes to the enemy. Throughout the "Slaveholders' Rebellion," or "Great American Conflict," there was but one battle—Nashville—which in its results rises to the dignity of decisive as far as involves the destruction or dissolution of an opposing force. Even with this commendation, it cannot be classed with the Rosbach and Leuthen of Frederic, gained against tremendous odds, or these latter with the Trebbia, Thrasymene, and Cannæ of Hannibal. Frederic's opponents were inferiors in one sense or another; Hannibal's superiors in all but the commanding general and his lieutenants.

Although there are a multitude of books devoted to the consideration of Hannibal and his exploits, the whole are nothing more than mere presentations of the same bare facts, regarded from different stand-points as affected by the clearer lights of circumstantial evidence and a better knowledge of geography and contemporaneous history. Polybius is the only reliable authority, and after Cannæ, 2d

August, B.C., 216, the accounts which have come down to us are mere fragments of what he originally wrote. He was a Greek, and therefore comparatively devoid of prejudice; and he was already born before the career of Hannibal had closed. The Roman histories are utterly unreliable, even devoid of a basis of truth. They were prepared to excuse the humiliation of their country, and written centuries subsequent to the events of which they treated. They transmuted defeats into victories, especially those of Marcellus, to glorify a powerful Roman *gens*, and the best critics have now come to the conclusion that the Consul Nero, to whom is attributed the defeat of Hasdrubal, was not entitled to the glory, and it was only allotted to him, about three centuries after, to flatter his namesake, the vile emperor Nero, who was a contemporary of Livy, the historian. Ihne, the most careful of the modern historians, and who has published within ten years, assures us, after Polybius fails us by reason of the fragmentary nature of his literary remains, that Hannibal's strategy in the last years of the war was as superlative as in the beginning; "that at no [other] period does the generalship of Hannibal appear in a more brilliant light" (ii. 442).

Arnold corroborates this. He says, "The Roman writers have recorded victories over Hannibal too mendacious for themselves to believe." Ihne styles him the irresistible conqueror whom no Roman general ventured to encounter (ii. 337); that whenever he appeared the Romans slunk back into their hiding-places; that, as at Cannæ, his subsequent victories were slaughters of his enemies; that the very name of Hannibal filled Rome with affright.

That Scipio won a victory over Hannibal at Zama is incontestable, but under circumstances completely reversed. The Roman infantry were veterans burning to avenge seventeen years of disgrace, supportd by the very cavalry which gave them the victory that rendered the Carthaginian first the general of cavalry, and then the commander-in-chief invincible while seconded by Maharbal—"the best cavalry officer of the finest cavalry service in the world (A. 496)—and Hasdrubal, who managed the commissariat of the army for so many years in an enemy's country." To fight at Zama, Hannibal had "scraped together"—to use the terse expression of a German military historian—every one who could be shoved into line of battle for a last struggle. The Numidian horse, who had decided the result on the Ticino, on the Trebbia, on Lake Thrasymene, and on the Aufidus, was now arrayed against him, under the vile and subtle but undoubtedly able Massanissa. These horsemen decided the last decisive battle of the second Punic war.

After this event Hannibal, as a general, appears no more on the war scene as a grandiose character. As a patriot, politician, administrator, restorer, he looms up even more extraordinarily. Carthage was no longer the rival of or a danger to Rome. But the great Carthaginian, there and everywhere while he lived, was a menace and a peril to the conquerors. Like sleuth-hounds they hunted him, an exile, from refuge to refuge, to the last moment of his life unceasingly an object of dread. The individual seemed as dangerous in his old age, alone, without support, as the hero in his prime, when he cast his javelin over the Colline gate into affrighted Rome. To escape their unrelenting pursuit and a captivity in their cruel hands, perhaps a hideous death, an immolation on the altar of revenge, Hannibal took poison. Thus died the greatest man of all the ancient world, and the greatest captain this world has ever seen—perhaps will ever see.

Pages might be devoted to his eulogies, but Niebuhr (373) sums up all that human words can aggregate, in sentences which almost blaze. His concluding words are almost a sufficient epos: "Wherever he was he commanded; . . . he bowed before no one; he never violated truth, nor did anything which was opposed to the dignity of his character.* This man I honor, esteem, and love almost unconditionally——"

"A carbuncle entire, as big as thou art,
Were not so rich a jewel. Thou wast a soldier
Even to Cato's wish, not fierce and terrible
Only in strokes; but with thy grim looks, and
The thunder-like percussion of thy sounds,
Thou mad'st thine enemies shake, as if the world
Were feverous and did tremble."

J. Watts de Peyster,
Brev. Major-General S. N. Y.

*Hannibal, a Historical Drama, by John Nicol, B. A. Oxon., 1873, contains not only a fine reproduction by photograph of a bust of the greatest Carthaginian, but also passages of magnificent situations and poetic thoughts. and copious notes most valuable and interesting, revealing facts not to be found in modern works. The writer has the only copy he has seen or heard of in this country. In Note 33 Nicol observes: "Mr. Hennebért. whose admiration for the greatest Captain this world has seen cannot exceed my own . . . says: 'Cet homme n'avait pas un seul défaut, une seule faiblesse!'"

"STRIKERS."

Made up, as it was in days gone by, of men gathered from nearly all the civilized nationalities of the globe, it would have been very strange if the army had not contained and fully developed some very peculiar characters. It had its full share of "erratics," some of them wearing the shoulder straps of officers, a larger percentage, however, clad in the plainer garb of the enlisted man.

Until what is known in army circles as "The Consolidation" took place in 1869-70-71, the employment of a soldier as servant by an officer was provided for by regulations, and many remained for years on such duty, preferring it, with its relief from many more soldierly duties, to the exposure to guard and fatigue details, so common to those whom they considered less favored than ourselves. Some, who had easy-going, or inefficient employers, soon "owned" them, and, being trusted in every way, grew to rule the roost—especially if the officer was a bachelor—at times, even when "the madam" was present.

My acquaintance with "strikers" began when I took command of a company of colored troops, in the autumn of 1863. The men of which it was composed had been employed on all sorts of work; field hands, "drivers" on large plantations, teamsters, body-servants, butlers, etc., and consequently it was not at all difficult to find a man who knew something of anything which might be needed in the line of manual labor. At first, most of the officers employed boys who had run away from their homes and drifted into the camps; but, having no close supervision, most of them became very inefficient and were turned adrift.

To the man from the Northern States, unacquainted with the negro character, they afforded much amusement, and the encouragement they too frequently received in their drollery, was not at all productive of good. I remember one "shade," employed by the officers of a company to run errands and other duties about camp, whose antics were an unfailing source of mirth. It was during the "quarter ration days" at Chattanooga, when for dessert the unsatisfied individual drew his belt one hole tighter. If the officers were absent from the tent when the scanty meal of hard bread, bacon, and coffee—without trimmings—was ready, the inky-hued messenger, clad in

cast-off trousers and blouse several sizes too large for him, and vizorless uniform cap, would begin a search along the line of officers' tents. When an inspection, made by opening the front of the tent enough to allow one eye to see the interior, disclosed the object of his search, he scratched on the canvas, the army way of knocking, and bidden to "Come!" would step inside, remove his tattered head-gear, place it under his left arm, give the military salute with his right, and announce:

"Sah! de feas' awaits!"

He grew rapidly in height and weight, and before the year closed was beating a drum among the "tooters and pounders" mustered as field musicians.

After having had a wide experience, and my patience tried to the verge of profanity, times without number, I at length took an enlisted man of my company as cook for the officers' mess, and we found him a black diamond in the rough. He had been in charge of a cotton plantation in Mississippi, where he worked a gang of sixty field hands, and he *was* a driver. When tested by hard drilling, one of his legs, which years before, had been broken by the kick of a mule, proved weak, and he was placed in charge of the company kitchen. He was given two regular assistants, and a daily detail of two men as helpers, and that kitchen was a marvel of neatness and order. One of the officers declared that he slept one side at a time, for, if the company was ordered out at night, he always answered the first call, and by the time the company could be formed—and it was trained to quick movements by night as well as by day—he was ready to issue rations.

As he had three brothers in the company, he was, to distinguish him from them, called by the name "Myles"—given him on the plantation. The company had been in service nearly a year before a drunken man was seen in it. The first case was that of a very light octoroon, who had been inclined to boast of his complexion and look down upon "dem black niggahs."

As he came howling up the company street, every man came out of his tent to know the cause of the disturbance. Myles stood at the door of his cook tent as the guard hustled the offender off to confinement, and his comments, addressed to the first sergeant, were decidedly caustic.

"Dis yer company been mos' a year in de ahmy, ad' dis yer yellah fellah's de fus' to get drunk, an' he tinks he's mighty smaht. He's jes' no 'count, no how; aint niggah an' aint white man—jes' no 'count

yellah dog—gittin' drunk an' 'sgracin' de hull company. I jes wish cap'n'd tie him up an' give him 'bout fawty licks."

As he passed me in returning to his tent, I said:

"Myles, were you ever drunk?"

With what would have been a blush had his complexion allowed it and averted eyes, he replied:

"Yes, sah, cap'n, I use' to git drunk 'fore I got 'ligion, but I aint done got drunk none since."

"Well, Myles, how does a man feel when he is drunk?"

"Well, sah, cap'n, dat 'pends what he gets drunk on. When we uster steal massa's brandy an' wine, like we did sometimes, we fel' all right, but when we toted a bun'l o' cotton to de cross-roads sto' at night and got some o' dat pinetop whiskey, I felt nex' mornin' like 'bout a dozen white men had me by de har an' every one was pullin' his own way."

Myles did better than did many men of lighter skins and higher rank—he was a fervent, consistent Christian. With two or three others he frequently held quiet, decorous prayer meetings in his tent, and during nearly three years of service there was no infraction of discipline on his part, and though frequently intrusted with money or property he always accounted for all which had been placed in his charge.

He learned, by following a tracing, to sign his name, and could distinguish the different signatures of the company officers, but could not designate the letters of which they were composed, and the multiplication table was as incomprehensible as a table of logarithms. Yet if entrusted with money for marketing, he could always account for every expenditure—so much for this, so much for that; till perhaps a dozen items were enumerated, "an' yere's de change"—invariably correct.

When ordered on detached service, which required my presence in a Tennessee city, I secured his detail as orderly, and in that capacity he had the care of my horses, and voluntarily assumed charge of the rooms occupied conjointly by another officer and myself. The young man was somewhat careless in his habits, and one morning Myles accosted him:

"Yere, sah, Cap'n, yers some money I foun' in dat ves' what's gwine'te de wash"—followed by the advice—"if yous don't tek bettah cah 'an dat ob you'ns money, yous gwine lose it, sum day—shoah."

When in October, 1864, the regiment was sent from Chattanooga to Decatur, Ala., to reinforce the garrison of that place against attack by the forces of Gen. Hood, Myles, still in charge of the officers'

mess, accompanied it, and was with his company and one other, left on the right bank of the Tennessee river, where, in the afternoon of the next day, it was exposed to a severe fire of some batteries on the left bank. Myles had built a small fire behind a huge tree at the crest of the river bank, made coffee and fried some bacon, of which, one at a time, the officers had partaken, as a slackening of the enemy's fire permitted access to the shelter. For nearly an hour it had ceased; and, curled up among the roots of the tree, Myles was enjoying a nap. A thin spiral of smoke floated out from behind the tree, and probably attracted the attention of the gunners, for when they resumed firing the first shell struck the bank about three feet below the crest, and exploding, opened a hole large enough to bury a mule, scattered ashes and brands over everything near, and jarred the tree till dead limbs and twigs fell like hail. Thus rudely awakened, Myles sprang to his feet, and with his eyes distended to their utmost limit, and face an ashy gray, flattened his body against the trunk of the tree like a squirrel hiding from the hunter. As, dodging from tree to tree, along the bank, I reached his shelter and saw his terror, I could not refrain from laughter, even when I found that the shock had affected his powers of speech, and that for the moment he could only stammer incoherently, and point to the yawning chasm at his feet.

About two months later, he had a somewhat similar experience. It was during the afternoon of December 16, 1864, when General Steadman's troops, among them the first and second colored brigades, had developed the extreme right of the rebel position on Overton Hill, and four companies of the 14th Colored had been assigned as support for the ten pieces of artillery which had gone into action in a position which commanded the refused line of the enemy, and had been firing for some time without a reply from the opposing battery near the Franklin pike. With two or three other strikers, Myles had found a small fallen tree about a hundred yards in rear of the batteries, which, kept from the ground by a heap of brush, afforded a good position from which to view the scene of conflict—that is, it did when they took possession. But when the opposing battery began to reply, that pile of brush was itself a scene of action. The first shell, fired a little too high, passed just above the heads of the federal artillerymen and struck the pile of brush. I had turned my face in that direction, an instant previous, and saw the catastrophe.

No one was hurt, but the trunk of the tree was lifted several feet, the brush scattered in all directions and through the smoke of the explosions, I saw Myles turning a back somersault, my overcoat on

one arm, and coffee-pot and frying-pan in the other hand, his companions indulging in similar exercises; and they viewed the rest of the battle from a more distant and safer position.

After hostilities ceased in the spring of 1865, several regiments of colored troops, under Colonel Morgan of the 14th, were stationed at Chattanooga, and my company was assigned as guards at brigade headquarters. A headquarter mess was organized, and Myles put in charge. Soon parties from the North began to make their appearance; and, of course, all wanted to visit Lookout mountain; and picnics to Lulu Lake, lying about six miles back from the point of the mountain, were of frequent occurrences. Two champagne baskets were converted into panniers, a pack-saddle procured, and, starting at daylight, Myles would go out to the lake, and have breakfast awaiting the party following him an hour later. To reach the lake he rode through the grounds of the hospitals on the mountain, and within fifty feet of the door of the house of the surgeon in charge, wholly ignorant of the persons occupying them. Why he had reason to be interested in them will be told later.

His wife had escaped from slavery with him; the pair making their way off the plantation during one of the numerous federal raids south of the Memphis and Charleston railroad, and had been in one of the contraband camps at Nashville; and he left her there when he enlisted. After the close of hostilities, he began to make inquiries for her, and I wrote several letters for him, to parties in charge of camps in an endeavor to ascertain her whereabouts. Failing in this, he was given a furlough from Knoxville and a pass to Nashville, to ascertain if possible what had become of her. He returned very sad, not having been able to gain any tidings of her. Not long after, however, I saw on several occasions, a strange woman in the company street, and noticed that he seemed quite attentive to her, but nothing was said regarding the visitor. But when, in March, 1866, the company was moved to Nashville for muster-out, she found her way to that city, and soon after, as Myles prepared the dinner for his officers, he brought her with him, and announced their engagement; stating that they were to be married as soon as he was discharged, "an 'dis time, by the preachah."

"I reckon, cap'n, my oder wife mus' be daid, cos I caynt heah nottin' 'bout her;" was his reply to my question as to what they would do if wife number one made her appearance later. The usual good wishes for their happiness were expressed, and hand in hand, like younger and lighter-complexioned lovers they departed.

Myles was not on hand to prepare breakfast the next morning, but a few hours later in company with *two* women, he made his appearance and came at once to me, his face aglow with smiles, as was that of the, as yet—strange female. As he saw my puzzled look, he saluted, and still holding the hand of the latest arrival, said:

"Cap'n de good Lawd done been mighty good ter me—I'se foun' my ole wife! Dis is her, an' sah, Cap'n, all dem times I was gwine up on Lookout mountain, she was cookin' for de majah doctah, in dem big hospitals up dar, an' I was ridin' right by de do'!"

The situation was amusing as well as pathetic.

"Well," Myles," I said, "what is this new woman going to do?"

"Well, sah, Cap'n, I dunno 'zacly. She's mighty nice 'oman, and I like her pow'ful, when I reckon' dis yer wife's daid, but now I foun' her, I cayn't take no odder. Dat wouldn' be right, sah, Cap'n."

The poor surplus woman looked disconsolately at the happy pair, but said: "Dat's all right, sah, Cap'n—a heap bettah to find dat ole time wife now dan bime by, when we'se been mahied by de preachah."

To my question regarding plans for the future he said:

"Me an' my wife 'd like to go back down to de ole plantation whar we wukked in ole times, but we doan' reckon 't be good place, now. Dey aint many white folks dar befo' de wah, an' mebbe so dar'll be trouble now, an' we bettah stay 'way. My wife she done saved her money, an' I got mine, an' Dan (a brother of the wife) he got hissen—an' we gwine see if we caynt buy some dese mules what Gov'*ment's* sellin', an' we gwine try to rent some lan' somewhar's in dis paht, and go fahmin'."

They succeeded in purchasing a number of condemned mules, rented a large farm "on shares" near one of the country towns in Middle Tennessee and were for several years successful; but poor Myles lost his reason, and died demented.

HENRY ROMEYN,
Major U. S. Army.

BOSTON'S GREAT TEA PARTY.

The war of the American Revolution presented itself to the world in two aspects, which are well worth considering: One was the view taken of the situation by the mother country, which was frivolous and shallow; the other, the way in which matters were looked upon by the colonies, which was earnest and real. The British government played with destiny, as it turned out, with thin gloves upon its hands; it had no faith that the colonists meant what they said or that they even believed in the righteousness of their cause; on the side of wrong, the conflict was mere boys' play, while on the other it was a hand-to-hand fight for a strong and righteous principle—"no taxation without representation," underlying the success of which were the liberties of a future great nation.

With the exception of a few friends of America, such as Pitt, Burke, Conway, Barre, Wilkes and their adherents, who so nobly defended her in Parliament when the odious stamp act was forced upon the colonies in 1765, it is doubtful if there were in 1773 a corporal's guard in Great Britain who entertained the slightest belief in the justice of the American cause; the question which was asked was: "What madness has possessed those far away vagabonds to assert their independence of the British crown? Wipe them from the face of the earth." Dr. Johnson, the great moralist, said of such men as James Otis, Samuel Adams and John Adams: "They are of a race of convicts, and ought to be thankful for anything we allow them short of hanging."

And George III., well meaning, according to the light bestowed upon him, but pig-headed, as all the Brunswick family have been and ever will be, had not sense enough to see that this principle and these underlying liberties were real, and that he was being fooled and cajoled by his ministers into believing that "taxation without representation" was perfectly legitimate treatment of people 3,000 miles away, and who, he knew, had in the mother country but a few to espouse their cause. It was the strong against the weak, an attitude which Great Britain assumed in after years under this same dunder-

head King (which Thackeray called him), when he claimed the right to search our men-of-war, which culminated in the attack on the United States ship Chesapeake of 44 guns by the British line-of-battle ship Leopard in 1807, taking from her several American seamen as English deserters, which seamen, or those living at the close of the war of 1812, the British King was forced to restore to our government.

Of such conduct as Great Britain was guilty of, President Madison, in his Message to Congress in June, 1812, upon which war was declared with that power, stated that under the pretence of searching our vessels for British subjects, "thousands of American citizens, under the safeguard of public law and of their national flag, have been torn from their country and everything dear to them; have been dragged on board ships of war of a foreign nation, and exposed under the severities of their discipline to be exiled to the most distant and deadly climes; to risk their lives in the battles of their oppressors, and to be the melancholy instruments of taking away those of their own brethren." King George III. yielded his "Principle" of right to search only at the cannon's mouth.

The views of the two opponents in the great conflict of the American revolution differed as widely as light from darkness; there was not on the part of Great Britain a single principle to uphold or maintain; she posed as a giant exhibitor of might, the bully of the school against the little fellow who should have been protected, and not kicked and cuffed about. She did not take into account the earnestness and reality of the colonies as shown by the rebellious, but patriotic, acts from 1765 to the dawn of the day which gave birth to American independence, and lost King George the brightest jewel in his crown—a nation now of 70,000,000 free people.

One of the events which immediately preceded and led to the declaration of independence on the part of the colonies was the destruction of the tea in Boston harbor on the night of December 16, 1773.

Dr. Franklin, our great philosopher and statesman, wrote from London: "The British ministry believe that 3d. a pound upon tea, of which one does not drink 10 pounds a year, is sufficient to overcome all the patriotism of an American." Bancroft, in his "History of the United States," said that the destruction of the tea in Boston harbor in December, 1773, "merits a more thorough and particular consid-

eration than it has yet received." A few days subsequent to the destruction of the tea, it was thought that an attempt would be made by the provincial government to seize and transport to England some of the leading members of the committee of correspondence, who were thought to have been connected with the affair. A writer in the Boston Gazette (Detector) warned Gov. Hutchinson, and his officials that the conspiracy against the lives and liberties of a number of the most worthy patriots of Boston was known, and would be defeated. Then there was printed a vote of the committee to this effect, "that the subscribers do engage to exact our utmost influence to support and vindicate each other, and any person or persons who may be likely to suffer for any noble efforts they may have made to save their country, by defeating the operations of the British Parliament, expressly designed to extort a revenue from the colonies against their consent." This was signed by Samuel Adams, Oliver Wendell, William Cooper, Nathan Appleton, and 11 others.

The tea was destroyed as was determined beforehand, and the ball was set rolling, which stopped not until liberty was born and became a fixture in the hearts of the American people. If the East India Company, the owners of the detested tea, would not agree through their consignees to remove the obnoxious article or give bonds that none should be sold, then it must mingle with the salt water. And it all happened according to the plans made by Paul Revere, Joseph Warren, and other well known patriots of the day.

The destruction of the tea was accomplished at Griffin's wharf, in the vicinity of several ships of war lying in the harbor and almost under the guns of the Castle; conjecture only can be exercised for reasons why no opposition was made to this bold and daring movement; those who participated in it had the honor to bear a part in one of the most important acts which brought the King and his Parliament to the decision that America should be subdued by the King's troops.

When the news of the destruction of the tea reached London, there was a state of excitement scarcely, if ever, before equalled. A member of the House of Commons exclaimed: "Delenda est Cartharge, the town of Boston ought to be destroyed. I am of the opinion you will never meet with that proper obedience to the laws of this country until you have destroyed that nest of locusts." One of the rewards which the town received for its act of patriotism was the passage of the Port bill on March 31, 1774, closing the port of Boston to any vessel or goods from and after the 1st of June following.

Bancroft, the historian, thus graphically pictures the sudden transformation of the industrious, thriving town of Boston into a scene of idleness and want: "The inhabitants of the town were chiefly traders, shipwrights and sailors; and since no anchor could be weighed, no sail unfurled, no vessel so much as launched from the stocks, their cheerful industry was at an end. Want scowled on the laborer as he sat with his wife and children at his board. The sailor roamed the streets listlessly without the hope of employment. Not a scow could be manned by oars to bring an ox or a ship from the islands. The boats between Charlestown and Boston could not ferry a parcel of goods across Charles river; the fishermen of Marblehead, when from their hard pursuit, they bestowed quintals of dried fish on the poor of Boston were obliged to transport their offering in wagons by a circuit of 30 miles. The harbor, which had resounded incessantly with the cheering voices of prosperous commerce, was now disturbed by no sounds but from British vessels of war." Boston lived for months upon donations of food smuggled into the town from the surrounding country—Great Britain hoped to starve the people into submission.

But the people of Boston had no idea of paying for the tea as they were warned must be done before the Port bill would be repealed; they preferred starvation to degradation, and they met their fate with a silent dignity becoming the cause they had voluntarily espoused. It was on the question of the repeal of the tax on tea that Burke electrified Parliament with the greatest speech of his life, but it was ineffective. The duration of the Port bill was to depend solely upon the good conduct of the Bostonians, and would be relaxed only when they should make compensation for the tea, and otherwise satisfy King George of their willingness to submit to his behests. This was in March, 1774. What a change was soon to come over the dreams of royalty! The spirit was then brewing which was to be felt at Lexington, Concord and Acton within a little more than a twelvemonth, brought into being by the passage of this same Port bill, the offspring of the doings of the men who formed the Boston Tea Party.

The colonies were stronger by reason of the Port bill, which owed its existence to the patriotic spirit of half a hundred of the townspeople of Boston, who, when they destroyed the East India Company's tea, builded better than they knew, for they then and there at Griffin's wharf laid the corner stone of American liberty, and bound the colonies together as though in iron bands. The Port bill was a great mistake on the part of the British government.

Throwing overboard of some 340 chests of tea reads more like a romance than an actual, established fact. The leaders in this bold undertaking were the Samuel Adamses, the John Hancocks and the Paul Reveres, and their followers were the mechanics of Boston, the hard-handed sons of toil, each living and dying with a history as imperishable as the granite walls of the monument on Bunker Hill. Oliver Wendell Holmes, a direct descendant of that firm old patriot, Oliver Wendell, penned some lines on the Boston Tea Party, of which the following are a portion:

An evening party—only that
  No formal invitation,
No gold-laced coat, no stiff cravat,
  No feast in contemplation;
No silk-robed dames, no fiddling band,
  No flowers, no songs, no dancing;
A tribe of red men—axe in hand—
  Behold the guests advancing.

The smith has flung his hammer down,
  The horse shoe still is glowing,
The truant tapster at the Crown
  Has left a beer-cask flowing;
The cooper's boys have dropped the adze,
  And trot behind their master;
Up run the tarry shipyard lads;
  The crowd is hurrying faster.

On! on to where the tea ships ride,
  And now their ranks are forming,
A rush, and up the Dartmouth's side,
  The Mohawk band is swarming!
See the fierce natives! What a glimpse
  Of paint and fur and feather,
As all at once the full-grown imps
  Light on the deck together!

A scarf the pig-tails secret keeps,
  A blanket hides the breeches—
And out the cursed cargo leaps,
  And overboard it pitches!

The flags go down on land and sea
  Like corn before the reapers.
So burned the fire that brewed the tea
  That Boston served her keepers.

The waters in the rebel bay
  Have kept the tea leaf savor,
Our old North Enders, in their spray,
  Still taste a Hyson flavor;
And Freedom's teacup still o'erflows
  With ever fresh libations
To cheat of Slumber all her foes,
  And cheer the wakening nations.

The harsh measures of the British Parliament had only a few years previously culminated in the stamp act, which was so odious to the colonies and unproductive to the revenue of Great Britain that it was repealed after a life of a year only. Then followed the tax on tea and on other articles. So far as the tea tax was concerned, the people of the colonies entered upon a rigid self-denial, agreeing to drink no tea. Three hundred women of Boston—heads of families—among them many of the highest and best, had, three years before the destruction of the tea, signed an agreement not to drink any until the tax on it was repealed; and the young women of Boston and elsewhere, rightly named the "Daughters of Liberty," followed the example of their elders. From 1770 tea was proscribed.

As Francis S. Drake wrote: "When King Charles had finished that first cup of tea ever brewed in England—the gift of the newly-created East India Company—no sibyl was at hand to peer into the monarch's cup and foretell from its dregs the dire disaster to his realm hidden among those insignificant leaves. Could a vision of those battered tea chests floating in Boston harbor have been disclosed to him, even that careless, pleasure-loving prince would have been sobered by the lesson. It was left to a successor, George III., who failed to read the handwriting on the wall—visible to all but the willfully blind, to realize its meaning in the dismemberment of an empire."

John Hancock offered one of his vessels free of all charges if the importers would reship the tea then stored in Boston, to London; but no, the consignees were determined upon a course of self-destruction, and thus Boston became, of all the cities and towns in the

colonies, the spot dedicated to the song of liberty as sung by patriot lips—"No tax without representation."

There were two men living in Boston at that time, Thomas Hutchinson, the royal Governor, and Samuel Adams, the man of the people, both natives of Boston, and both graduates of Harvard College. The Governor set himself against the popular movement, for which he paid dearly in the obloquy of his countrymen and in a life-long exile from his native land. Samuel Adams, his opponent, a man proscribed, possessed all the qualities that the times required, and was, in one sense, the Father of the Revolution. A genuine lover of liberty, he believed in the capacity of his countrymen for self-government. He was a stern and inflexible patriot, as much beyond the influence of bribery and corruption as the Apostle Paul. And there was, too, another great patriot on the stage, Joseph Warren, killed at Bunker Hill, who was hand and glove with the patriots of Boston, and who doubtless was an active participant in the destruction of the tea. He it was who drew up the regulations of the "North end caucus," so-called, which met most frequently at the "Old Green Dragon Tavern" on Union street, and there planned, with other patriots the movements of the Sons of Liberty, which kept the townspeople advised of every step taken by the royalists.

On the morning of November 29, 1773, now more than a century and thirty years ago, the people of Boston were called upon to meet at Faneuil Hall "to make a united and successful resistance to the last, worst and most destructive measure of the administration." A vast concourse of people assembled, so many that they adjourned to the old South Church, where they passed resolutions and sent for the consignees of the tea ships. This body of patriots kept meeting and adjourning from day to day, acting under the leadership of Samuel Adams and Joseph Warren, until patience ceased to be a virtue, and the eventful 16th of December was reached.

Then came forward Josiah Quincy, Jr., who had defended Capt-Preston (afterwards pensioned by the British government for his so-called heroism), and the British soldiers on the occasion of the Boston massacre in March, 1770, who spoke with great eloquence, advising moderation in what he considered a great crisis. He said to the crowd: "Let us consider the issue. Let us look to the end.

Let us weigh and consider before we advance to those measures which must bring on the most trying and terrific struggle this country ever saw."

But even he with the rarest eloquence of any man of his day, with the exception perhaps of James Otis, could not pacify the people. It wanted but a little spark to start the blaze, and it came in the shape of a voice from a listener in the gallery of the old South Church, who uttered an Indian war-cry, which was immediately answered from the door of the church by some thirty patriots disguised as Indians. In the twinkling of an eye the meeting broke up and the vast throng made for Griffin's wharf, where lay the tea ships with their obnoxious freight. In less than two hours 340 chests of tea were broken open and pitched into Boston harbor. Not a single leaf escaped its fate; all was swallowed down the great maw of Boston bay.

And so Great Britain by her injudicious and childish treatment of the people of Boston created the Boston Tea Party, one of the incidents which helped her to lose the proudest part of her possessions, her American colonies.

BENJAMIN F. STEVENS.

THE LIEUTENANT'S DILEMMA.

By Colonel H. R. Brinkerhoff, U. S. Army.

The mountain country lying west of the San Juan river in New Mexico, and extending into Arizona as far as the cañon imbedded De Chelly, was a famous hunting ground for many years after the acquisition of the country by the United States.

During this time, parties from the nearest military stations were accustomed to visit this region in the fall or early winter each year for a period of hunting and trapping.

The Ute Indians claimed the country beyond the San Juan as their own, and regarded the white hunters who entered it as trespassers. None but their enemies, they asserted, would engage, as these hunters did, in destroying the game upon which they largely depended for subsistence.

In the vernacular of the trespassers, the Utes were inclined to be "ugly."

A condition of war scarcely prevailed between the hunters and the Indians, but much ill feeling existed, and encounters of a serious character were not uncommon.

The possibility that hostile bands of Indians might be met, induced the hunters who entered the country to unite in parties strong enough to successfully resist the atacks of small bands of Utes, such as were usually met with on the hunting grounds. Occasionally, however, small parties of two or three individuals were rash enough to venture alone into the Indian country beyond the San Juan. One of these parties, consisting of an adventuresome young Lieutenant of the Army, and an old trapper, who was thoroughly acquainted with the region, and possessed some knowledge of the language of the Navajoes and the Utes, set out in the early winter of fifty-five for a few weeks' hunting in the mountains between the San Juan and the De Chelly.

For several days the little party made its way up the De Chelly, hunting along the banks of the stream as it proceeded. The weather was delightful, and the air pure and exhilarating. Several herd of deer were observed each day, and other wild animals were almost

constantly in view, but for some reason they were exceedingly difficult to approach. The trapper succeeded occasionally in killing a deer or a turkey, but the Lieutenant lacked both the knowlege and skill necessary for success as a hunter, and failed in every attempt he made.

It annoyed the young man greatly that his efforts in hunting were unsuccessful. In common with the majority of young gentlemen fresh from a college course, he considered himself fully equipped for every vocation in life, and competent to enter any field of human endeavor with but little, if any, further preparation. That he should fail in such a common field as that in which he was now engaged annoyed him excessively.

"It's all luck," he observed to the trapper as he returned one day from an unsuccessful attempt to get a shot at a deer. "It's all luck," he repeated.

"And want of experience as well," suggested the trapper.

"Possibly," replied the Lieutenant, "but I doubt it. There's nothing in hunting that requires experience. You simply find your game and then approach it stealthily and shoot. That's all there's to it," he exclaimed, petulantly.

"I'm afraid you're in a hurry in reaching your conclusions, Lieutenant," said the trapper. "It seems to me that there is nothing in the world, even hunting, that can be well done until experience and training has been had. Some people think that simply putting on a uniform makes a soldier of the wearer, and buckling on a sword satisfies all needed requirements for an officer. You seem to have fallen into the same kind of impression, Lieutenant, about hunting."

"May be so," replied the officer, inpatiently, "but soldiering is a profession and a science, and experience and training are necessary for both officers and men. Hunting, I take it, is simply a pastime."

"Well, possibly you may be right," said the trapper, "but some people think that soldiering also is a pastime, and that experience and training are alike unnecessary. I know a volunteer Captain in our army during the war with Mexico who claimed that all an officer needed was a sword and a copy of the drill book, and that an enlisted man's qualifications comprehended only his ability to maintain a respectful attitude while the articles of war were being read to him."

"He was a fool," said the Lieutenant.

"I'm glad you said that," observed the trapper earnestly. "The Captain was accustomed to call all regular army officers, 'fools,' and now you send it back at him."

"But as to this hunting business," he continued, "you must get down to it carefully or you won't succeed. You must try to learn somthing about the habits of the creatures you hunt. You must learn to approach them at the right time, moving forward when they put their heads down to feed, and lying close when their heads are in the air. You must keep them always on the windward side, carry your rifle near the ground, and never shoot until you are sure of your aim."

The Lieutenant listened with much impatience, and apparently profited but little from the trapper's discourse. His vanity like

"The fragment of a nail beneath an honest compass,"

turned him from the truth. He drew in his horse to a halt when his companion had concluded, and was about to begin a reply, when suddenly a number of deer made their appearance, quietly grazing in a little valley not far away.

"I'll talk to you again about this business of soldiering and hunting," he said, "when we have more time. But now if you will stay with the animals, I will try my luck once more with that herd of deer."

He sprang quickly from his horse, and leaving the animal in charge of the trapper, moved hurriedly away, and was almost immediately lost to sight in the broken ground into which he had entered. The trapper remained mounted for some time and waited and watched anxiously for a signal from the Lieutenant, or to hear the discharge of his rifle, that he might follow him or go to his assistance if need be; but no signal came, and no report of a rifle broke the stillness of the solitude. It would have been imprudent, under these circumstances, for the trapper to have attempted to follow, especially so since he had no means of knowing in what direction the officer had gone after he had disappeared from his view. It was better, he reasoned, that he should remain where he was and await his return.

He dismounted, finally, when the darkness had come on, and tethered the animals carefully among some willow trees that grew along a little watercourse near by. When this had been accomplished, he gathered an armful of bark and roots, and striking a spark from a flint into a piece of tinder that he carried, soon had the fuel in a blaze. He smothered the flame quickly with pieces of green willow twigs and bunches of grass, until he succeeded finally in sending up a column of smoke towards the sky as a signal to his companion.

The night wore away heavily hour after hour, as the anxious trapper maintained a weary waiting and watching for the return of

his companion. About midnight a faint halloo attracted the attention of the trapper, and proceeding quickly in the direction from which the sound came, he found the officer a few hundred yards away laboriously making his way towards the bivouac, carrying the body of a young deer.

"I followed your advice," he said, as the trapper approached him, "and you see I have been successful. A couple of hungry wolves seemed on the point of attacking me," he continued, "just as you came up, but I wouldn't have surrendered my deer to them if a whole pack of the creatures had wanted it, or a gold mine in Golconda had been offered me for it. I'm going to take the antlers home with me," he said, "and hang them up in my den as my first trophy in hunting. That's kind," he continued, as the trapper swung the deer upon his broad shoulders and started to carry it towards the bivouac. "I'm awfully tired, but I've got strength enough left to say that I think I can do better next time. I presume you will feel that such a remark is practically a concession, and proves your theory to be true. If you feel that way, I won't attempt to deprive you of the comfort it may give. It may be true that the man who aims at the sun, as I have been doing theoretically, will shoot high, but I am quite convinced that the man who shoots low and within the field of his personal experience and comprehension, will, to use a homley phrase, get the most meat."

On reaching the bivouac, the deer was hung in a tree by a gambrel, and as soon as the Lieutenant and his companion had partaken of some food they lay down to sleep near the horses. They had scarcely fallen asleep when they were awakened by the uneasy movements of the animals. The trapper at once got out of his blankets, and hurrying among them, endeavored to quiet them, at the same time giving particular attention to their fastenings. They quieted down somewhat soon after the trapper came among them, but they seemed nervous and apprehensive, notwithstanding his presence.

"There's a pack of wolves or Indians about," said the trapper to his companion, "and I think I'll stand watch for the rest of the night."

He had scarcely ceased to speak when a big, grey wolf approached the bivouac, and squatting upon his haunches a few yards away, suddenly broke the stillness of the night by a long drawn, deep-throated, unearthly howl, followed quickly by the yelping of a dozen or more coyotes that accompanied him. As soon as the coyotes ceased their prolonged cries, the wolf again burdened the air with a fiendish howl, awakening the echoes for miles about him in every direction.

The terror-stricken horses plunged wildly about endeavoring to break their fastenings, quivering the meanwhile like aspen leaves in the breeze. The Lieutenant sprang quickly from his bed and joining the trapper, tried to quiet the animals as well as he was able. Finally, at the suggestion of his companion, he threw himself down, and crawling upon his hands and knees for a few yards towards the wolf, fired at him with his rifle.

The shot was a fortunate one, and the sound of the discharge had scarcely died away when the creature was observed to spring suddenly into the tir and fall back apparently mortally wounded or dead. The coyotes that accompanied the brute instantly dispersed, and the horses soon became comparatively quiet again.

A profound silence succeeded the disappearance of the coyotes, and the Lieutenant and his companion congratulated themselves that the trouble was over for the night, and once more prepared to obtain needed sleep. They had, however, scarcely stretched themselves upon their bdankets when the howl of a wolf, a half mile or more away, suddenly again broke the stillness of the night. A few moments later the howl was repeated, considerably nearer than before, and the yelping of a pack of coyotes that accompanied the wolf could be plainly discerned.

"That fellow's coming to make us a call," said the trapper. "The smell of your deer has reached him, and when he arrives it will be best, I presume, to give him the same kind welcome you gave his friend a moment ago."

The wolf stopped frequently as he approached, and squatting down each time upon the ground, gave tongue to a most weird and unearthly howl, prolonged in descending cadence until it died away at last in a moaning plaint, like the wail of an infernal spirit. Finally, as he drew near the bivouac, a deep-voiced wolf with a still heavier and more diabolical howl, drawled out a hoarse reply some distance away to the left, followed directly by another howl to the right.

"I'm afraid we're in for it, Lieutenant," said the trapper. "Those fellows are calling their friends together, and we will probably soon have to fight to save the lives of our animals, and possibly our own."

Acting upon the suggestion of the trapper, the fastenings of the horses were once more carefully examined, and a fire was kindled near the animals.

In the meanwhile the howling of the wolves, and the yelping of the coyotes that accompanied them had become almost incessant. As the creatures came near, their gaunt forms could be seen by the

hunters flitting here and there about the bivouac like grim spectres. As their numbers increased, they grew bolder and approached nearer than before, uttering low whining growls as they leisurely passed to and fro. Finally three or four of the creatures suddenly rushed towards the bivouac, as if acting in concert, and disregarding the cries of the Lieutenant and his companion, seized the body of the deer, and pulling it down from the tree in which it hung, began instantly to tear its flesh with their sharp fangs. Encouraged, apparently, by the success of the attempt to obtain possession of the deer, several other wolves and a small army of coyotes, rushed immediately upon the horses, led by an immense brute, whose grizzled sides were flecked with froth and foam that had escaped from its open jaws as it had run across the country to join the gathering of its fellows. The Lieutenant sprang immediately to save the body of the deer from the wolves, and succeeded finally in killing one of the brutes with his pistol, and in driving the others away. In the meantime the trapper had seized a blazing brand from the fire and waving it in his hand, had repelled the attack upon the horses. As the wolves gave way before him, he followed them beyond the limits of the camp, and succeeded finally in killing one and wounding another before they escaped under cover of the darkness.

As soon as the wolves had been driven away, the Lieutenant and his companion hastened to gather fuel and quickly lighted a number of fires about the place where the horses were tethered.

"They'll be back on us again," cried the trapper, "just as soon as they have devoured their dead comrades within their reach. Possibly," he continued, after a brief pause, "it might be well to prolong the banquet by surrendering to them the body of the wolf you killed in the camp."

Hastening at once to the nearest fire, he seized a brand in his hand for his protection, and hastened to drag the body of the wolf killed by his companion some distance from the bivouac.

"There!" he exclaimed, when he returned. "Our kind visitors will now be able to indulge in a prolonged feast upon their dead comrades, and may let us alone for a while."

For an hour or more thereafter the wolves and their coyote satellites held high carnival over the bodies of their dead companions, and fought and struggled with each other for a share of the carnivorous feast in which they were engaged. As the noise of the banquet died slowly away, an occasional spectral-like form flitted hurriedly about the fires, and the red, burning eyes of the gaunt creatures whose hunger had not yet been appeased, shone fiercely in the dark-

ness outside of the line of the fires. On several occasions two or three of the brutes, acting apparently in concert, as at first, attempted to force their way between the fires to get at the horses, but they were forced back each time by burning brands hurled at them by the Lieutenant and his companion. Finally, after an all-night struggle, daylight began to appear, and as it came on, the creatures, one after the other, slunk away under cover of the trees that grew along the watercourse, until finally when the sun made its appearance in the eastern horizon, they had all disappeared.

As soon as the danger of further attack seemed fully past, the hunters permitted to the fires about the bivouac to die out, and after picketing the horses in a patch of grama grass that grew near the camp, spent the greater part of the day in obtaining needed sleep.

It would probably have been more prudent if they had moved on at once and endeavored to find a region less infested by wolves, but they reasoned that a change of location would not probably relieve them from possible attacks of the creatures, so long as they remained within the limits of the hunting grounds. They decided, therefore, to remain where they were for another day.

Towards evening they spent some time in collecting fuel, that the fires about the animals might be constantly maintained during the night. Fortunately, no serious attacks followed. There was much howling in the distance, and prolonged yelping of coyotes, but the sight of the burning fires about the camp kept the wolves from renewing their attack upon it.

On the following morning the hunters broke up their bivouac, and turning eastward, slowly crossed over the mountains, hunting as they proceeded, and came down eventually in the valley of the San Juan.

Before reaching the valley, the hunters became aware that they were being followed by one or more Utes. On several occasions the skulking form of some living creature had been detected in the darkness, moving swiftly from one cover to another near the places where the animals had been tethered. After each such experience, fresh moccasin tracks were found in the morning at the places where the creatures had been seen. A watch was at length established, and the hunters alternated in keeping the animals constantly in view.

When the river was eventually reached, it was found to be much swollen by recent rains that had fallen, and the crossing was in consequence necessarily delayed for several days. At length the waters somewhat subsided and the crossing was successfully accomplished late in the evening of a cold winter day. As soon as the animals had

all been brought over, the party went into camp on the bank of the river, near the place where it had reached the shore.

The darkness had scarcely come on when the attention of the Lieutenant and his companion was suddenly attracted by a loud splashing in the water of the river not far from the shore where they had formed their camp. The two men hastened to the bank, and gazing out over the stream, discovered by the dim light reflected on the water, an Indian and a horse struggling in the swift current of the stream. The animal finally succeeded in breaking away from its rider, and at once swam to the shore, where it was captured by the trapper and tied to a tree by a lariat that trailed from its neck. The Indian was not as fortunate as his horse, and, despite his heroic efforts to reach the shore, was borne rapidly down the swift stream, and finally disappeared altogether from view.

The Lieutenant and his companion soon gave up watching for the reappearance of the Indian, and entered upon the duties of the night. The Lieutenant was firmly of the opinion that the Indian had been drowned, but the trapper was skeptical.

"Of all human beings," he asserted, "the Indian is the most tenacious of life, and no harm can come by keeping a sharp lookont for this one. If he succeeds in reaching the shore he will give us a call before morning I am sure!"

He chose the latter part of the night for his watch, as the time of the greatest danger, and after going on duty at midnight, maintained thereafter until daylight the greatest possible vigilance in guarding the animals. It was evident to him that the Indian had attempted to follow his companion and himself across the river to attempt the theft of their horses, or possibly to murder them, if he could, while they slept. He was probably the same individual who had made the moccasin tracks they had discovered about their camps while they were hunting in the mountains. Should he escape being drowned and succeed in reaching the shore within the immediate proximity of their camp, he would undoubtedly renew his efforts before morning to steal their horses, hoping to find them less watchful than before.

But the vigilance of the trapper proved to be unnecessary, and the night passed quietly without any incident of unusual character to mark its course.

After a meagre breakfast had been served on the following morning, the horses were saddled and packed, and the party was about to resume its journey when the attention of the trapper was arrested by the sound of a human voice, coming apparently from the river.

Hastening to the bank of the stream, he quickly discovered an Indian clinging to some broken rocks that projected a few inches above the water in the middle of the river, some distance below the place where he stood.

"Give me your help, Lieutenant," he shouted, and hurriedly seizing one end of a log of drift wood that lay near the shore he endeavored to carry it into the water. "Push it out in the stream," he cried, as the officer came running to his assistance. "The old scoundrel who tried to follow us across the river last night has lodged on the rocks below us, and may be able to catch the log as it goes down and help himself ashore."

"I think I will go out and bring him in," said the Lieutenant.

"For heaven's sake, no!" cried the trapper earnestly. "There's no living Indian worthy of the risk."

But the Lieutenant was determined in his purpose, and quickly divesting himself of a part of his clothing, forced the trapper aside almost angrily, and throwing himself upon the log, pushed it out in the stream. The current seized the frail craft at once and carried it down the angry waters, bearing its living burden rapidly towards the rocks upon which the Indian still clung.

When the rocks were finally reached, the Lieutenant motioned the Indian to throw himself upon the log, but the unfortunate creature was almost exhausted, and practically helpless. After many futile efforts, the officer succeeded at last in clasping him in his arms and lifting him bodily from the rocks. When this had been accomplished he permitted the log to drift away again into the rapid current, and once more floated quickly down the stream.

The officer was a strong, vigorous youth, and after a prolonged struggle in the water, succeeded finally in directing the course of the log to the shore, where it was seized by the trapper and drawn out on the bank.

The Indian was barely alive when the landing was effected, and a long time elapsed before he was able to sit up and partake of some food that had been prepared for him. He was very grateful to the young officer for saving his life, and assured him as well as he could, that the act would never be forgotten, and in time would be suitably rewarded. He seemed, however, to feel that the few words he was able to employ in acknowledging his indebtedness for the service rendered him, were insufficient to fully express the gratitude he felt, and endeavored by an almost servile manner towards the Lieutenant, to show how grateful he really was. The officer received the atten-

tions of the Indian courteously, but it was plainly to be seen they were distasteful to him. The sentiment expressed by Charron, that,

> "He who receives a good turn should never forget it;
> And he who does one should never remember it,"

seemed to be well exemplified for the time by the bearing of the officer and the Indian towards each other.

The party remained in its camp on the San Juan for several days after the rescue of the Indian, and then set out at the earnest request of the Ute, to visit his lodge in a village of his people, a few days' journey from the river.

The Indian rode his own horse and led the way across the country, sometimes following indistinct trails made by wild animals, and at other times moving boldly across a trackless country. Occasionally he led the hunters through deep cañons into which the sun never shone, and again along the breast of towering mountains, whose summits were often concealed among the clouds.

The animal he rode was a vicious brute, and when the creature was tethered near the other horses, spent much of his time in biting and kicking at them. It became necessary, therefore, to tether him at night some distance from the other animals.

On the third day after leaving the San Juan, the party prepared its bivouac in a little cañon by the side of a wild mountain stream that tumbled down by a series of cascades an falls through the narrow passage in which the hunters had halted for the night. Some time after midnight the trapper was suddenly awakened by the cry of a wolf not far from the bivouac. He would probably have given the matter little further attention, the Lieutenant being on watch at the time, but for the fact that the usual yelping of the coyote satellites that always accompanied a wolf to feed upon what he left, did not follow the cry. In a few moments thereafter, as he listened, the howl was repeated, but again the usual concert of the coyotes did not follow. The impression of the trapper that the howls were made by an Indian seemed now quite well confirmed, and rising quickly from his bed, he strapped his pistol belt about his loins and made his way quietly in the darkness to the place where the horses were tethered. He found them uneasy and apprehensive, and after carefully examining their fastenings and making some efforts to quiet them, passed on to see if the Indian's horse was secure. To his surprise, he found a part of the hair rope with which the animal had been tethered lying upon the ground, one end securely tied to a tree, but the animal had disappeared. Hastening at once to the place where the Indian had

made his bed, he searched for him on the ground, intending to inform him of the theft or escape of his horse. His astonishment was greatly increased on finding that the Indian had also disappeared. Returning as quickly as possible, he sought for the Lieutenant, and when he had found him and made him acquainted with what he had discovered he returned to the animals and renewed his efforts to quiet them. The howl of the wolf was not again repeated but in its place the hooting of an owl in another direction suddenly broke the stillness of the night, and awakened the echoes in the cañon in which the bivouac has been established.

"That's our Ute friend," said the trapper. "He's trying to find out who is howling like a wolf on the other side of us. Just think of the thanklessness of the miserable old scoundrel," he continued, after a brief period of silence, during which he and his companion had been listening and watching. "It would afford as good a classic in juvenile literature, I'm sure, as the story of the serpent whom the farmer found frozen in his field and carried to his home, where upon being warmed into life it quickly gave evidence of its natural ingratitude by biting one of his children."

As the trapper ceased to speak, the hooting of the owl once more broke the stillness of the night, and the dismal cry of the bird, borne with marvelous distinctness on the clear air, echoed from point to point along the steep sides of the cañon until it mingled finally with the soughing of the wind in the trees, and died away mournfully in the distance.

"Hist!" whispered the Lieutenant, "See those wolves over there crawling towards us."

As he spoke he pointed earnestly towards a couple of objects slowly approaching the spot where he and his companion stood in the dark shadow of the wall of the cañon.

"No, no," whispered the trapper instantly. "They are Indians. Get down, quick," he exclaimed, "and hold your rifle ready to shoot."

His words were almost immediately verified by the objects throwing themselves at full length on the ground, where they lay motionless for some time, waiting and watching, and evidently resting from the fatigue they had undergone in crawling upon their hands and knees in imitation of the prowling movements of the wolves. They arose at length slowly to their feet and with bodies half bent and knees drawn up, cautiously advanced for a short distance, when they once more fell upon their hands and knees in the attitude of wolves. Rising slowly at length to their feet, after a few moments more of waiting and watching, they again approached the bivouac. By this time the

horses had become almost frantic from fear, and were plunging madly about and straining at their fastenings.

"They're trying to stampede our animals," whispered the trapper, "and it won't do to let them come nearer. Take the scoundrel on your side and I'll take the one on mine. Hold your aim until I say fire."

The Lieutenant and the trapper had thrown themselves down upon the ground quite near the animals, when they first caught sight of the Indians, and fearing to move lest they should be discovered, remained where they were. Unfortunately, just as the trapper was about to signal to his companion to fire, one of the terrified horses in its wild plungings, struck the trapper a severe blow on his arm and caused the weapon in his hands to be discharged. The Indians instantly sprang to their feet and fled in the direction of the nearest cover, a few yards away. The Lieutenant fired upon them as they ran, but without apparent result, except possibly to accelerate their movements in seeking cover. The trapper was furious over the mishap and could scarcely be restrained from chastising the innocent cause of the misadventure.

"It's always so," he exclaimed, complainingly, in discussing the affair with the Lieutenant soon after it was over. "The little things in life invariably knock out the big ones."

"You'r right there," said the Lieutenant. "I knew a man once who was engaged to be married to a lovely young lady worth a million, and lost her because he couldn't find a missing collar button one day when he was preparing to keep an engagement with her. She chided him so severely for being a few moments late that he left her. Then, again," he continued, "there was Burchard Monk, who raised his helmet to scratch his head after he had won a battle in medieval times, and was shot in the eye by an arrow some one had let fly at a venture. But the worst of all *contretempts* I can recall was that of the French King who stopped a battle until he could get rid of a flea that annoyed him."

Soon after daylight a loud halloo was heard in the cañon not far away, and almost immediately thereafter the Ute made his appearance, riding slowly towards the bivouac. Both the Indian and his horse seemed greatly exhausted, and when the camp was at last reached, the Ute threw himself upon the ground, where he lay, while he talked with the trapper.

"Well, what does he say?" asked the Lieutenant, when the Indian at last ceased to speak.

"It's a long and improbable story," replied the trapper. "He

says in effect that he was awakened by a noise in the night, and that as he set up on his blanket he caught sight of an Apache Indian riding a horse from the bivouac. He quickly discovered, he says, that the animal was his own, and started at once in pursuit. He followed the thief, he asserts, for several miles, and overtook him at last among the rocks near the head of the cañon, and after a brief contest recovered his horse. He asks that a few hours' rest may be given him before we go on again."

A brief conference at once followed between the Lieutenant and the trapper, during which the latter strongly urged that they should immediately part company with the Indian and return to the San Juan. The Lieutenant, however, firmly opposed the proposition, and announced his determination to stick to the Ute. The trapper finally yielded and the entire forenoon was given for the recuperation of the Indian and his horse, during which time the Lieutenant and his companion alternated in the care of the animals and in taking trout from the stream upon which they were encamped. Finally, soon after mid-day, the bivouac was broken up, and the party once more set out under the guidance of the Ute.

As the hunters proceeded, the gorge through which they passed gradually contracted until it became finally little more than a narrow ravine. Occasionally the indistinct trail they followed was almost entirely obstructed by great rocks that had fallen upon it from the breast of the mountain. When these obstructions were encountered it became necessary often to move in single file through openings among them. Fortunately these difficult places were usually followed by a smooth trail for a time, and were succeeded occasionally by open spaces in which the party could have found comfortable room for a bivouac.

The hunters had scarcely entered the second space it encountered, when the Ute, who preceded them to pilot the way, suddenly uttered a cry of triumph, and pointing to the dead body of an Indian lying near the trail, exultingly patted himself upon his breast with his hand as he pointed at the body.

"Bad Apache!" he exclaimed in his native tongue. "Stole Kishnawau's horse."

"I think I owe our Ute friend an apology," said the trapper, as he turned to ride on. "He evidently told us the truth about the theft of his horse."

The summit of the mountain was finally reached late in the day, and the hunters passed hurriedly over the divide, glad to escape from the narrow tortuous path they had followed in making the ascent.

As they began to go down on the far side of the mountain, a scene suddenly presented itself to their view that caused them to stop involuntarily. The slope of the mountain below them was somewhat rugged, but it ended finally in a delightful little valley in which the nutricious, black-headed, grama grass, indigenous to the Rocky Mountain region, still retained somewhat of the fresh, green color that characterizes it during the summer season. A little mountain stream meandered through the valley, its banks lined by a strip of cottonwood trees a hundred or more yards in width. Here and there narrow tongues of timber extended from the lower slope of the mountain down into the valley, following small tributaries of the stream.

As the hunters sat upon their horses gazing at the landscape before them, their attention was attracted to a herd of deer peacefully grazing on the open ground a short distance away. Further up the valley a large flock of wild turkeys could be seen scratching in the earth under a grove of piñon trees, and just below them within full view, a black bear, followed by a couple of cubs, was lumbering along following the bank of the stream. The hunters were intensely interested in the scene before them, and took little note of the time consumed by the delay until the Indian succeeded finally in attracting their attention.

"The sun is gettin low," he said, "and if the white chief would find grass in the valley for the horses, and wood for the fire before the darkness begins, he must ride on."

The hunters were startled by the voice of the Indian like sleepers awakened from their dreams, and at once moved forward, mechanically following the Ute down the side of the mountain. They had nearly gotten down when they suddenly came directly in front of the mouth of a narrow ravine that extended up a little waterfall, a hundred yards or more above them. Several deer had gone up into the place to drink and feed upon the tender grass that grew in the shade of the precipitous sides of the ravine. The creatures instantly took alarm when the hunters appeared at the opening, and ran wildly about endeavoring to escape. Finding at last that no other opening existed than that through which they had entered, they rushed in a body through it, passing quite near to the hunters in their headlong flight. The trapper and the Lieutenant both fired from their rifles as the deer passed, but neither was accustomed to such hurried shooting and their shots flew wild. The Indian, however, proved to be a better marksman under such conditions, and succeeded in sending a flint-headed arrow from his bow through the body of a fine, young fawn as the creature rushed past him. Springing to the ground,

as soon as the herd had passed, the Ute threw the body of the fawn upon the neck of his horse, and mounting quickly behind it, led the way down the slope at the foot of the mountain.

As the hunters reached the edge of the valley, they came suddenly upon a field, embracing an acre or more in extent, covered with the petrified trunks of great forest trees, averaging from one to two feet in diameter. Many of the trees lay evidently where they had originally fallen, possibly centuries before, and although broken into sections of a few feet each in length, their original connection with each other was apparent. Other trees in the field had been broken into smaller sections, varying in size from a lady's thimble to her work basket. These broken pieces lay scattered about on the ground, all continuity in their original order having been destroyed by the action of the elements.

Many of the sections were covered on their sides by a thick layer of a dark substance that seemed to have originally been the bark of the tree but at the ends, where fractures had occurred, the most beautiful colors usually prevailed.

After the Lieutenant and his companion had passed through the field and gotten some distance away, they halted to look back upon it. A slight shower of rain had fallen a few hours before and had washed the petrifactions clean from the dust that had gathered upon them during the dry season, just past. A most wonderful scene presented itself to their view. The sun was low in the western heavens at the moment and its rays fell directly upon the field, setting each piece of agate on fire with an intense dazzling light almost painful to the eye to look upon, affording a scene, possibly, like that which inspired Taylor to write:

> "Once when upon the utmost hills, the sun
> So tensely burned we thought 'twould burst and flood
> The golden sunset all with richest blood."

Each sharp edge of the petrefactions seemed to have resolved itself into a prism that possessed the power of reflecting the rays of the sun, and now reveled in colors almost unearthly in their intense brilliancy and marvelous beauty.

"'And I saw, as it were, a sea of glass mingled with fire,'" quoted the Lieutenant reverently, as he and his companion turned to follow the Indian.

A short ride brought them to the stream they had seen from the top of the mountain, and selecting a desirable spot on its bank they went into bivouac for the night.

After the animals had all been carefully tethered and the saddles and packs properly cared for, the hunters proceeded to make their supper upon the tenderloin of the fawn that the Indian had killed, after which the remainder of the carcass was hung up by a gambrel in an adjoining tree, beyond the reach of straggling wolves or coyotes. An abundance of resinous fuel was found near the place selected for the camp, and when the fire for the night had been lighted, the Lieutenant and his companion and the Indian, gathered about the cheerful blaze and sat for an hour or more smoking their pipes and conversing upon their experiences during the day. The glorious vision they had seen in the evening when the sun shone upon the agate field near the base of the mountain, soon became the principal subject of their conversation.

"Ask the Indian," said the Lieutenant at last, addressing the trapper, "if his people have any legends among them concerning these petrifactions."

The Indian nodded his head affirmatively when the trapper succeeded at length in making himself understood, but he refused persistently to reveal what they were.

"The white chief," he said at length, "would liken Kishnawan's words to a path among the rocks, if he should tell him what he knows."

But the trapper urged him to speak, and prompted by the Lieutenant, assured him that his "words" would be treated with respect.

"Besides," said the Lieutenant, addressing the trapper, "tell him that if I should relate to him the belief of my people concerning the origin of this field of petrifactions, he would probably be as skeptical as I possibly can be over what he may tell me."

When the trapper had translated this message he quietly filled the bowl of his pipe with pulverized tobacco and handed it to the Indian with an ember from the fire. The Ute grunted his thanks, and after a few vigorous puffs at the pipe, glanced hurriedly at the Lieutenant. Observing that the officer sat waiting for him to speak, he began in a low monotonous voice speaking and smoking alternately.

"Long years ago," he said, "before the white man came, an old grey-haired warrior died, leaving to his son a magic staff which the old warrior had used for many winters and summers in helping himself as he walked about the village in which he lived. The staff was made of a hollow reed through which a tough willow rod had been forced. The lower part of the staff ended in a bear's claw, and the upper end in the knee bone of a coyote. It was partially covered

with the skin of a snake and surrounded by two or three belts of bear and panther claws. The old warrior had been a great medicine man in his day, and he succeeded in giving the staff power to do many wonderful things. It could shorten itself so that it could not be seen, and extend itself while invisible, to a great length, and bring back things from a distance in the grasp of its claw.

"When the old warrior died," continued the Indian, "his son, a thoughtless youth, obtained possession of the magic staff and used it thereafter often for bad purposes."

"I'm afraid our friend has misunderstood us," said the Lieutenant, "and is repeating some fairy tale of his childhood."

"He says he is not," replied the trapper, after a brief conversation with the Indian. "He asserts that the account he is giving us, is accepted as true in all the lodges of his people."

"Tell him to go on," said the Lieutenant.

"One day when the young man was hunting in the mountains," resumed the Ute, "a rain began to fall and a great, brilliant rainbow formed in the heavens, with one end resting among the fallen trees. The young warrior watched the rainbow for a while, and then in a spirit of mischief, perhaps, sent the staff against it to destroy it. A tremendous crash instantly followed, terrific beyond description, and the trees that were lying upon the ground were broken in pieces, and those that were standing were hurled to the earth. The rainbow was splintered into fragments, and came down presently in a cloud of fire with a noise like thunder, and a great light like that of the sun. The warrior was blinded by the light, and falling upon his face, hid his eyes with his hands. When he looked up at last, the staff was gone, and the rainbow could no longer be seen. The rain had passed, the great light had disappeared, and the rocks that had been trees, shone in the sun, stained by the color of the rainbow, as they shone to-day where the white chief looked upon them."

A long silence followed when the Indian ceased to speak, broken at times by the distant howl of a wolf, and the occasional cry of a night bird in the trees near the bivouac. The muffled figures of the Lieutenant and his companions as they sat motionless about the fire, wrapped in their blankets, seemed in sympathy with the silence that prevailed about them. A slight movement among the animals finally attracted the attention of the Indian, and rising to his feet, he hastened to the place where his horse was tethered. He seemed fond of the animal, and his voice could soon be heard talking to the creature

as he examined its fastenings. He came back presently and resumed his seat at the fire.

"Anything wrong with your horse?" asked the trapper.

"No," replied the Indian. "The howl of the wolf disturbed him."

"The Utes are fond of their horses, I presume," said the Lieutenant.

"Couldn't be more so," replied the trapper. "There isn't a warrior among them who wouldn't trade his wife for a horse any time. That's so, Kishnawau, isn't it?" he continued, addressing the Indian in his own language.

Kishnawau was apparently greatly annoyed by the question, and twisted about uneasily on his seat before he attempted to reply.

"It would depend on the warrior, and the horse, and the squaw," he said, diplomatically.

"He puts the horse before the squaw, anyway," said the trapper, laughing as he spoke.

"It would be cruel, possibly," said the Lieutenant, "to make the matter personal and ask our Indian friend if he would be open to such a trade himself, but you may ask him, if you will, why the Utes are so fond of their horses."

"They are fond of their horses," replied the Indian, after the question had been duly propounded to him by the trapper, "because it is easier to ride than to walk. But there was a time," he continued, "when horses were not much thought of in the nation."

"Indeed!" said the Lieutenant, "When was that?"

"A long time ago," replied the Indian. "As many winters ago as there are leaves on the trees."

"Horses were scarce, were they?" asked the Lieutenant.

"No," replied the Ute, "horses were not scarce, but they were not needed. The white chief knows why."

"Unfortunatly, no," replied the Lieutenant, "but I would be glad to learn."

The Indian looked at him attentively for a moment, seemingly amazed that a man of such superior knowledge should be so ignorant.

"A long time ago," he said, finally, "some Ute warriors discovered one day a thin, white smoke coming through a fissure in a rock on the top of a great mountain near their village, and when one of them happened to go near it the smoke got under his blanket as it lay fastened about his shoulders, and lifting him from the ground, carried him some distance down the side of the mountain."

"He's at us again, you see," said the trapper, "feeding us on another fairy tale.

"Apparently another fairy tale," interrupted the Lieutenant. "But I like fairy tales," he added abruptly. "Tell him to go on."

"Go on," repeated the trapper, addressing the Ute.

"When the warriors returned to the village," resumed the Indian, "they were afraid to relate what had happened to their comrade, for fear they would not be believed.

"At last, however, they confided to a great medicine man, who was very wise, how the smoke had come out of the fissure in the rock and gone under the warriors blanket and carried him down the side of the mountain.

"The medicine man shook his head gravely, and questioned the warriors closely before he would believe what they told him. At last he became convinced that what they said was true, and leaving the village, he went with them to the top of the mountain.

"He was sorely afraid, he told them on the way, that the fissure from which the smoke emerged might become closed by some means, in which case the smoke might possibly lift the mountain and carry it away with all the deer and other wild animals on it, upon which the Utes depended for food for themselves and their families. He approached the place therefore with great caution, but he found the rock solid all about the fissure and the place in no apparent danger of being closed. He held out his blanket at once to catch the smoke, holding on tightly to the corners with his hands. At first the smoke refused to enter the blanket, and the medicine man turned angrily towards the warriors who had brought him to the place, but before he could speak, a breeze turned the smoke suddenly towards him, and, driving it under his blanket, raised him from his feet and carried him away above the tops of the trees to the bare side of the mountain beyond. The warriors hastened to follow, and when at last they had found the medicine man safe and unharmed where he had fallen, they hurried away and returned once more to the village."

"Whew!" ejauclated the trapper, when he had interpreted the Indian's words. "Our Ute friend is getting worse as he proceeds. If Gulliver had only known of his genius as a romancer, what a marvelous assortment of fables they could have invented between them."

"The medicine man was sorely perplexed," continued the Indian, "and many moons came and went before his medicine told him what to do. At last he sent one day for a squaw who could make beautiful baskets of willow twigs and porcupine quills, and set her at work to

weave a covered basket for him as large as his body. When the basket was done he covered it with pitch from the pine tree, and closed it so tight that neither smoke nor air could find its way through it, except at a small place in the bottom which he left open for the smoke to enter.

"When the basket was done he went alone one night to the top of the mountain, and fastening his lariat over the basket, placed the opening near the fissure and permitted the smoke to enter. Fortunately but a small amount had entered when a wind suddenly sprung up and carried the smoke away. At first the medicine man was angry that his basket had not been filled with the smoke, but he quickly found that enough had entered to bear his weight for a while when he held on by the lariat. Fastening the rope about his body under his arms, he pushed with his foot on the ground and was carried a long distance before he came down again. Pushing once more with his foot, he was carried away again for a long distance towards the village. And so pushing with his foot from time to time, he rapidly made his way to his lodge."

"Let me fill your pipe again," said the trapper, addressing the Indian. "I'm agraid you are getting a trifle extravagant in your speech. Possibly the tobacco may afford a needed sedative."

The Indian gladly accepted the proffered service, and when the pipe was once more lighted he resumed his narrative.

"The medicine man was delighted with his basket," continued the Indian, "and calling the people of the village together he showed them how it had been made and how it could be used. Unfastening the basket from a tree to which it had been tied, he held on to it with his hands and pushing with his feet, bounded away in one great leap as far as an arrow could fly from the strongest bow. When he touched the ground he bounded again and went out of sight of the people. Turning about, he pushed on the ground with his foot and bounded back to the place from which he had started."

"I'm anxious to know," said the Lieutenant, with great apparent interest, "what made the basket go forward; did it run on wheels, or did some one push it?"

The Indian seemed much troubled when the Lieutenant's words were interpreted to him, and shook his head as if in distress. He nodded vigorously, however, when the trapper inquired what caused the basket to go forward, to indicate that he thoroughly understood that part of the question. But a vacant expression, that seemed almost indelibly fixed, rested upon his face when the use of "wheels"

was suggested. The employment of such contrivances as an aid of locomotion, was evidently far beyond his comprehension.

"The smoke made the basket light," he said at length, "so that it rested uneasily upon the ground and could be pushed in any direction with little effort by the warrior whom it carried."

He waited for awhile when he had made this reply, and bowing his head, busied himself in drawing figures with his finger in the sand before him.

"The white chief is tired," he said at length. "Kishnawau's words have made him weary."

"He's got an idea you don't believe him," said the trapper.

"Tell him to go on," said the Lieutenant, earnestly. "Assure him that I'm greatly interested and want to get one of the baskets for my own use."

The Indian quickly turned his face towards the Lieutenant when his words were interpreted, and smiled almost audibly. His temporary resentment had evidently been allayed and his confidence restored by the expressed desire of the Lieutenant for a basket. Possibly no more satisfactory proof could have been given to the Indian that his story was accepted as true. He turned presently towards the fire and again resumed the interrupted narative.

"After some time had elapsed," he said, "an adventursome warrior caught hold of the flying basket, and pushing with his feet, bounded away, to the great delight of the people who were looking on. When the warrior returned, another tried the basket, and when it was found how easy it could be controlled and how rapidly it carried its load from one place to another, all the squaws in the village were set at work to make baskets like it.

"All sorts of mishaps occurred at the top of the mountain where the smoke escaped from the fissure, when the warriors attempted to fill their baskets. Many of them permitted too much smoke to enter, while others did not permit enough. They all found in time, however, how much was needed and thereafter had but little trouble.

"When the baskets were brought to the village they were tied to trees by strong buckskin lariats, but sometimes when the wind blew, they tugged at their tethers with far greater strength than a horse, and often broke loose and bounded away with great leaps, like those of an antelope or a hare, and disappeared in the mountains."

"Heavens!" exclaimed the trapper, with a sigh of relief when he had concluded the translation of the Indian's words. "Did you ever hear such a ridiculous fabrication?"

"Possibly not," replied the Lieutenant, "but I am more interested in hearing the story than in questioning its truth. However, the narrative is probably no more untrue than many stories commonly accepted among our own people. We persist in calling Pocahontas a chieftain's daughter, and William Tell an archer. We insist that Joan of Arc was a martyr, and that Romulus and Remus had a veritable existence. Tell the Indian to go on."

"At last a sad misfortune overtook the Utes. A great storm burst one day on the mountain and shook it like a leaf in the wind. The trees that grew upon it were torn up by the roots, and great rocks were raised in the air and hurled into the valley below. The deer and other wild animals ran into the village for protection; the dogs howled, and the horses forced their way into the lodges. The flying baskets broke loose from their fastenings, and bounding away, were soon lost to sight. When the storm ceased, the deer and other wild animals that had come into the village escaped unnoticed to the forests before the people had recovered from their fear.

"Several days elapsed before the warriors ventured to go up the mountain, but at last one made his way to the top and searched there for the place where the smoke had escaped through the fissure in the rock, but nothing remained that reminded him of the place. The top of the mountain had been broken down, and the trees and bushes and stones and earth that had covered it had all been hurled into the valley below, leaving it bare as the head of an eagle, and the rock with the fissure through which the smoke had escaped could no longer be found. The warrior returned to the village, and when he had told the people that the top of the mountain, and the rock with the fissure, had disappeared, the warriors hung their heads in sorrow, and the women wept aloud."

"I've heard of crying over spilled milk," said the trapper laconically, "but never before of sorrow over lost smoke. But, by the by, Kishnawau," he asked earnestly, "why don't you make your own smoke?"

"The medicine men have tried many times," replied the Indian, "but have never succeeded in making smoke like that which came from the fissure in the rock on the top of the mountain. The Utes still mourn the loss of their flying baskets," he continued, "but they have learned once more to be fond of their horses."

When the Indian had concluded his apocryphal story he inclined his head on his breast to indicate his great sorrow over the loss of

the rock with the fissure that gave forth smoke and remained silent in his place by the fire.

"I am sorry," said the trapper, after some time had elapsed, "that the great newspapers of the country are not aware of the existence of our red friend. His fertile imagination, while it possibly does not quite reach that of the ordinary reporter, would be valuable, nevertheless, because of its artless simplicity."

"I am afraid you are inclined to be uncharitable to both the Indian and the reporter," said the Lieutenant.

"Maybe so," replied the trapper. "I hold them both to be skillful prevaricators, with but little choice between them. You have listened to an Indian's specious invention," he continued. "Let me tell you now of a reporter's fabrication. The scribbler I have in mind, furnished his paper in my boyhood days with an account of a twenty-dollar bill that constantly produced other bills of the denomination. The reporter asserted that the bill was owned by Obidiah Oldham, of Salem, Massachusetts, and that he himself had personally examined it. When he first saw it he said a new bill was forming on its back. A few days later the new bill began to separate from the old one, and eventually fell off, of its own accord, a perfect facsimile of the mother bill. As soon as the new bill became detached, another one began to form, and in time it also fell off and gave way to still another. The reporter asserted that he had watched the old bill for several months, during which time it had shed thirty-three new twenty-dollar bills, and still seemed healthy and strong without a single change in its general appearance."

The trapper had sat gazing into the fire while he talked, his chin resting in the palm of his hands, and his elbows supported on his knees. It struck him suddenly that the Lieutenant had made no response to his narrative, and ceasing to speak, he rose to his feet and approached his companion. To his disgust he found him lying upon his back wrapped in his blanket, his saddle under his head, and fast asleep. "Well, if that don't beat the world," he exclaimed, in feigned astonishment. "I never knew those miserable falsehoods to have that effect before," and turning aside, he began the weary vigils of the night.

On the following morning when the carcass of the fawn which the Indian had killed on the previous day, was sought for, that it might be served for breakfast, it had wholly disappeared. The Lieutenant discovered the loss soon after he was out of his blankets, and for a while was utterly unable to comprehend how the theft

could possibly have occurred. He had taken his turn on watch during the night and was confident that no wild animals had approached the bivouac while he was on duty, unless possibly, he admitted, the thief might have called while he was engaged in quieting an alarm among the horses. All doubts, however, were quickly set at rest when the tracks of a bear, as large as the foot of a child, and somewhat similar in shape, were discovered deeply imbedded in the loose earth under the tree in which the carcass had been hung, indicating plainly the manner of the loss. Fortunately a small piece of venison remained in the panniers of the hunters from which their breakfast was speedily prepared.

After the morning meal had been disposed of, the Indian proposed that the forenoon should be employed in hunting, that he might not be compelled to return empty-handed to his lodge, which he stated was now but three or four hours distant from the camp. The Lieutenant readily agreed to the proposition, but almost immediately thereafter the heavens became overcast, and a cold, drizzling rain began to fall. The Indian was much disturbed over the prospects of the weather, and finally expressed his fear that the rain might turn into snow, in which event it would be difficult, if not quite impossible, to reach his lodge before dark. The proposed hunt was therefore abandoned, and the hunters set out finally late in the morning, following the Ute down the valley in the direction of his home. They rode rapidly, fearing that the storm would increase, and soon after mid-day reached the habitation of the Indian, where they were quickly housed from the rain in a lodge temporarily vacated by one of his squaws.

The lodge which was given them was surrounded by a number of other structures of a familiar character constituting altogether a little hamlet inhabited by a dozen or more Ute families. The location of the lodges had been made in such a manner as to preserve an open space near the middle of the village, but without any other object apparently in view. Neither streets nor alleys were provided for, or public or private grounds set apart from the common domain.

Soon after the arrival of the hunters in the Indian village, their host gave directions to provide a feast for them. Fortunately, two of his sons had just returned from a successful hunting expedition in the mountains, and had brought back with them a considerable quantity of game, including a wild turkey and a fat, young buck. These were selected to furnish food for the feast. The turkey was quickly drawn by the squaws who had charge of the preparations, and some salt and a handful of parched acorns were placed within it. The

feathers were permitted to remain unplucked, and a quantity of clay that had been moistened by water to a plastic condition, was thoroughly rubbed into them. The rubbing continued until the feathers were entirely concealed by the mud, and a covering of clay some two or three inches in thickness encircled the body of the fowl.

In the meantime a great pile of dry oak limbs and pine knots had been gathered and burned to furnish coals for the cooking. When all was ready, an excavation was made in the midst of the glowing mass, and the great ball of clay containing the turkey was cast into it and quickly buried from sight under hot coals and ashes. After an hour or more had elapsed, the ball was removed from the fire and allowed to cool. The clay had been hardened by the heat until it had became as solid as stone, and considerable force was required to break it. As the pieces were successively removed, the feathers went with them, revealing the pure, white skin of the bird, clean and unbroken.

(*To be continued.*)

OUR CONTEMPORARIES.

AN analysis of the contents of the principal military periodicals, systematically classified under a few general heads for the convenience of the reader and student, comprising extracts and comments, in which special attention is given to the most important and valuable articles.

ORGANIZATION, ADMINISTRATION AND MOBILIZATION.

1. The Service of Military Telegraphy in Austria.—*Kriegstech. Zeit.*, 7.

2. Organization for Military Telegraphy in the field.—*Jour. Cav.* October.

3. Our Cavalry.—*Same.*

4. The Squad System.—*Same.*

5. Pay and Status of non-commissioned officers—*Jour. M. S. I.* November, December.

6. Martial Law and the Colorado Strikes.—*Same.*

7. Six or Four-gun Batteries.—*Same.*

8. More Engineers (Pioneers).—*Kriegstech, Zeit.*, 8.

9. Russia and Japan in the Far East.—*Unit. Serv. Mag.*, Oct.

10. The Proposed Abolition of the Militia.—*Same.*

11. The Squadron System.—*Same.*

12. Specialism in the Royal Artillery.—*Same.*

13. The Foundation of an Army.—*Jour. Inf.*, October.

14. Chinese Troops and their Instructors.—*Same.*

15. Feeding Troops in Time of War.—*Same.*

16. The Need of a Reorganization of our Field Artillery.—*Jour. Arty.*, September, October.

17. Attaching Artillery to Infantry Divisions (France).—*Same.*

18. Changes in the World's Armies and Navies.—*Int. Rev.*, July; *Mar. Rund.*, October.

19. Loose Leaf Books as Army Records.—*Journal Artillery*, September, October.

20. Classification of Military Books.—*Same.*

21. Report of the Paymaster General, U. S. Army.—*Army and Navy Register*, October 15.

22. Report of the Inspector-General of the Army.—*Same*, October 22.

23. The Organization of Heavy Artillery.—*Army and Navy Gazette,* October 15.

The first of these articles is a very interesting account of military telegraphy in Austria. Although the electric telegraph was first used by the British in India, for military purposes, Austria deserves the credit for having possessed the first complete field telegraph (1852) in use at the maneuvers, and in 1864 and 1866 field telegraph stations were established under the enemy's fire, and hostile dispatches were often taken off the wires in the latter war.

Since 1900 Austria has three battalions of military telegraphers, forming the "Railroad and Telegraph Regiment." The organization also includes a Telegraph School (where are instructed eight men for every Cavalry Regiment in the army) a Telegraph Reserve cadre (skeleton company) for the field army, a commission on Telegraphic Material (which is responsible for the condition of all telegraph material), and a cadre (skeleton company) for Fortification Telegraphers. In case of mobilization Austria is ready to form three Army, fourteen Corps, eight Cavalry, two Mountain and two independent Telegraph Detachments.

The *second* article is translated from *Armee et Marine*, and contains a short but intelligent account of the most recent organization of the telegraph service in the French army.

The *third,* by Major Gaston, 1st Cavalry, is a very well-written paper on the equipment and the use of cavalry. We agree with Major Gaston as to the necessity for cavalry in our army, and believe it would be very unwise to reduce the present force. In the interests of justice, however, we would like to call attention to a remark of his which may be misleading. He says: "while on this subject it may be well to note that General U. S. Grant found that his force of artillery obstructed the roads, and he sent back to Washington all he thought he could spare. He kept his cavalry and infantry, and would undoubtedly have been glad of any increase of either of those arms."

Now, as a matter of fact, Grant did this only once, and then he was starting on his Campaign of the Wilderness, through heavily *wooded* country, where, of course, field artillery is not liable to be of much use. These are his exact words:

"The artillery was commanded by General Henry J. Hunt. This arm was in such abundance that the fourth of it could not be used to advantage in such a country as we were destined to pass through. The surplus was much in the way, taking up, as it did, so much of the narrow and bad roads, and consuming so much of the forage and other stores brought up by the trains. . . .

"Artillery is very useful when it can be brought into action, but it is a burdensome luxury where it cannot be used. Before leaving Spottsylvania, therefore, I sent back to the defences of Washington over one hundred pieces of artillery, with the horses and caissons. . . .In fact, before reaching the James River I again reduced the artillery with the army."(*Memoirs,* Vol. II, p. 181 and 241).

This gives a very different idea of what Grant thought of the necessity for field artillery in general (which appears to be the point Major Gaston desires to make).

The *fourth* article, by Captain Littlebrant, 12th Cavalry, is an excellent amplification and application of the Squad System, in barracks, mess hall, stables, camp, and on the march.

The *fifth* is on a subject which has long ago needed attention, namely, increased pay for our non-commissioned officers.

The *eighth* is an argument in favor of separating the *Pioneers* from the *Engineers* and increasing their number in the army. The author advocates one regiment for each army corps.

The *ninth* paper has some interesting mattter, a portion of which we quote here:

"The struggle between the Empire of Japan and the immense nation which owes allegiance to the Czar has been watched with profound interest in this country. The virtual annihilation of the Russian Navy in the Far East is an incident of considerable import in reference to England's position as the premier naval power, inasmuch as it emphasizes two things—the descent of Russia from being one of the three or four great naval powers of the world, and the elevation of Japan to the same position. This change must have a considerable influence on the naval policy and expenditure of Great Britain. The interests of Great Britain and Russia in several quarters of the globe have long been antagonistic, and a conflict between the two countries in regard to some territorial dispute or other was nearly always within the range of possibility. In fact, a good many people were never tired of asserting that such a conflict was not only probable, but certain. On the other hand, the interests of England and Japan have long been mutual, and the conclusion of a treaty between the two countries only formally ratified what was to all intents and purposes a clearly understood fact. The Russo-Japanese War, whatever may be the eventual upshot of it, has so far had one decidedly practical result. It has, as I have said, raised Japan to the proud position of one of the world's great naval powers. * * * From 1876 to 1878 I served on the staff of the late Admirals Sir Alfred P. Ryder and Charles F. Hillyar, who were, successively, naval comman-

der-in-chief on the China station. I had, therefore, ample opportunities of studying Japan's attempt to establish a navy. * * *

"The Japanese Navy is likely, at no far distant date, to be a potent factor in the Far East. The future of China is big with possibilities, it may be cataclysms, now undreamt of. The future is, indeed, probably the most complex problem of the century. I shall not attempt to forecast the solution of it. In view of that problem and possible attempted solutions of it, it is a matter for sincere congratulations that the two greatest naval powers in the Far East are in alliance. The object of neither is aggressive. Both are commercial nations, with vast interests in China—interests far greater than those of all other countries combined; each desires to maintain the wide-open door in matters Chinese. The two combined can keep the peace and preserve order in the turbid and troubled waters of Far Eastern politics. Japan is the England of the East."

The *tenth* paper is also of some interest to us.

"After an honorable and useful existence, extending over several centuries, the Militia of the United Kingdom is threatened with what practically amounts to summary and complete extinction.

"The suggested abolition of such a time-honored institution has naturally called forth many well-deserved panegyrics on the threatened Force, and as the splendid services rendered by the Militia not only in South Africa, but also during the campaigns in the Peninsula, the Crimea, etc., have thus been fully brought before the public, any recapitulation is unnecessary. * * *

"Before concluding this paper, it will be desirable to consider the nature of the Force which has been hinted might be substituted for the Militia. We are confronted with a Territorial Army, composed during the greater part of the year of professional soldiers. A species of Militia element, if I may use the expression, is to be introduced in the shape of a proportion of officers and men who would come out for training for a certain number of weeks annually with each territorial unit. From the outlines which have been published, it appears that the individuals composing this Militia element are, it is intended, to be practically a subordinate caste to the regular and permanent members of the Territorial Army. No Militia officer, for example, could, under the proposed system, aspire to the command of the battalion in which he had served; and when too old for the duties of a company officer, he would be relegated to private life with a step of honorary rank, to which would be apparently added the dignity of deputy-lieutenant.

"There is a difficulty even under existing conditions in inducing

gentlemen to accept commissions in the Militia, and it is hardly unreasonable therefore to express a doubt as to whether any candidates at all could be induced to come forward under the proposed scheme. As far as can be understood, the Militia would be reduced to the position of hewers of wood and drawers of water to the regular members of the Territorial Army, and any gentleman accepting a Militia commission would practically, by so doing, admit that he had no aspiration to any position of responsibility or authority.

"Such an arrangement might be worked perhaps under compulsory service, but it is submitted that its introduction under a voluntary system could not conceivably lead to success, whilst human nature remains as it is.

"Before plunging into the darkness of a sea of uncertainties, it surey behooves the most practical nation in the world to endeavor to set its military affairs in order, by the simple and business-like expedient of adapting to modern requirements an institution whose very existence during centuries proves that it is suited to national tastes and national needs."

The *thirteenth* article is a very able one relating to the army ration and its proper use, and the feeding of armies.

The *fifteenth* relates to the same subject.

The *sixteenth* is one that has been before the authorities for many years, but is constantly gaining in prominence, namely, the separation of the *field* from the *coast* artillery. The necessity for this change of organization is becoming more and more apparent as our general organization is perfected.

The *twenty-first* is already known to our readers, but we desire to emphasize one important point in this Report of the Paymaster General, which deserves careful consideration by our law makers:

"PAY AND ALLOWANCE OF OFFICERS.

"I would earnestly recommend an increase in the allowance for commutation of quarters of officers. Under existing laws the following monthly commutation allowances are now paid to officers under the grade of lieutenant general, when entitled thereto, the rate per room being $12 second lieutenant, 2 rooms, $24; first lieutenant, 2 rooms, $24; captain, 3 rooms, $36; major, 4 rooms, $48; lieutenant colonel, 4 rooms, $48; colonel, 5 rooms, $60; brigadier general, 5 rooms, $60; major general, 6 rooms, $72.

"The rate per room per month could remain as at present, $12, but the number of rooms should be increased by one successively for all of the stated grades above second lieutenant, which would give the

following monthly allowances: Second lieutenant, 2 rooms, $24; first lieutenant, 3 rooms, $36; captain, 4 rooms, $48; major, 5 rooms, $60; lieutenant colonel, 6 rooms, $72; colonel, 7 rooms, $84; brigadier general, 8 rooms, $96; major general, 9 rooms, $108.

"I think consideration of these schedules will show that the existing allowances are inadequate and that the proposed interests is not excessive, but entirely reasonable.

"I do not know when the present allowance of rooms was originally established, but I find the table in the Army Regulations of 1861, showing the number of rooms allowed to officers from major general down to be identical with the corresponding table in the regulations of 1901. There has been no change, then, in this respect in the last forty years.

"The commutation allowance at $12 was established by the act of Congress approved June 23, 1879, which amended the act of June 18, 1878, fixing the allowance at $10. Previous to the latter date the rate seems to have been fixed by the secretary of war (A. R. 1080 of 1861). During or near the close of the Civil war the rate was made $18 per room, and this rate remained in force until the passage of the act of June 18, 1878.

"The prevailing rates of pay for officers of the Army were fixed by the law of July 15, 1870. There has, therefore, been no increase in pay for thirty-four years, while, as shown above, the rate per room for commutation of quarters has actually been reduced one-third during that period. At the same time the cost of living, especially in the item of house rent, has very largely increased, particularly in all of the larger cities. A major general's commutation allowance of $72 would not pay the rent of a modern flat in any of our large cities, and a conveniently located and suitable house would be out of the question. There is no possibility that an officer of any grade with a family can rent a suitable house in such places as New York, Washington, Chicago, or San Francisco for the amount of his commutation. In this connection it may be of interest to note that the regulations of 1861 recognized the fact of the varying cost of living in different parts of the country, paragraph 1081 establishing rates of $8, $9, $12 and $20 per room, depending on location."

The *twenty-second* has two points that are of prime importance just now:

"It seems to be the almost unanimous sentiment of the Army that the one thing lacking to meet the soldiers' wants and tastes is the canteen feature. The absence of this leads to sickness, the commission of military offenses, desertion, and other crimes, as well as

impaired discipline, by driving men to resort to the low dives and groggeries that have sprung up, like mushrooms, around military reservations since the prohibition law was enacted. No moralist can justly claim that it is more injurious to the health or morality of a soldier to drink mild beer in a well-regulated canteen, where gambling is prohibited and excesses are not tolerated, than it is to drink bad whiskey in a vile den off the reservation, where drinking and gambling are encouraged without restraint. In fact, the canteen feature is not only a benefit morally, but the profits derived from the sales of beer and light wines are used to improve the mess, as well as for the purchase of periodicals, publications, etc., all of which add to the soldier's comfort and contentment. The Army wants the canteen feature because experience since its abolition warrants the conclusion that its restoration will promote the morals, health, and content of the soldier.

"POST LAUNDRIES.

"The introduction at a more recent date, of white collars, white and khaki clothing, and other washable articles of the uniform, has increased the soldier's embarrassments, as well as his bills, in this respect, until conservative officers of experience have come to the conclusion that there is pressing need for the establishment of post laundries at which the men—and officers too—can have their washing done at a moderate cost.

"It is believed that considerations of economy and convenience to the men, neatness and sanitation, entitle this subject to special attention, and it is recommended that a properly equipped steam laundry sufficient for the needs of the proposed garrison, be included in future plans for all permanent posts and provided for in the appropriations."

The *twenty-third* bears on a subject already referred to, namely, the separation of the field and garrison (or coast) artillery:

"When the Royal Regiment of Artillery was divided, many reasons were adduced for the change. It was stated that the officers could not be taught the work of both branches, and the War Office, having come to this conclusion, it was generally presumed that the separation was final. Such has not been the case. At the close of the South African war it was decided that the army should have heavy artillery, and, in order, presumably, to promote economy, the authorities converted garrison artillery into heavy field artillery, thus reversing the decision they had already arrived at. These batteries do coast defense work during the winter, and are given mobile guns and horses in the summer, in addition to which they figure in the "Army List" under the fictitious designation of siege train companies. Thus garrison com-

panies have been asked to do what it had already been decided officers on the general list could not do—that is, to learn the work of two branches. It is idle to say that heavy artillery work is suited to either fortress or siege companies. When these batteries belong to the field army they must adapt their movements to those of the other arms. When, however, they act as coast defense units or siege train companies they do totally different work. In addition to this, though at first they led their horses and moved as a semi-dismounted corps, they have now adopted field artillery methods, and the drivers ride. Thus they are field artillery in all but name, but lack the qualifications that make field artillery efficient. The men cannot ride well, all ranks know little or nothing about horses, and the officers generally have had no training in mounted duties. In fact, the inconsistency of this system is so very evident that it seems remarkable it should have been allowed to continue for so long."

MILITARY INSTRUCTION AND TRAINING.

1. The General Service and Staff College.—*Jour. Cav.*, October.

2. Practical Problems for Ordinary Garrisons.—*Same.*

3. Scientific Marching of the Rifleman.—*Jour. M. S. I.*, November, December.

4. Panoramic Sketches in Campaign.—*Same.*

5. Umpires (at maneuvers).—*Same.*

6. Teach Boys to Shoot.—*Same.*

7. Requirements of a Maneuver Site.—*Same.*

8. The British Fleet Maneuvers, 1904.—*Mar. Rund.*, October.

9. Field Guns at Target Practice and in Actual War.—*Kriegs. Zeit.*, 8.

10. Military Training.—*Unit. Serv.*, May, October.

11. The American Lake Maneuvers of 1904 (Capt. A. S. Rowan).—*Jour. Inf.*, October.

12. The Ohio State Maneuvers (Lieut.-Col. A. C. Sharpe).——*Same.*

13. The California Maneuvers (Capt. S. A. Colman, Gen. Staff).—*Same.*

14. The Manassas Maneuvers (Col. Clarence R. Edwards).—*Same.*

15. Rifle Firing and the National Rifle Competition.—*Same.*

16. How One Walks.—*Same.*

17. Proposed Method of Computing the Danger Space (Coast Artillery Firing).—*Jour. Arty.*, September, October.

18. French on Mimic War.—*Mil. Mail*, October 14.

19. Coast Artillery Drill Regulations.—*A. and N. Reg.*, October 8, 15.

20. Naval Gunnery.—*Same*, October 8.

21. Major Bellinger on the Maneuvers.—*Same.*

22. Sir John French and Military Training.—*A. and N. Gaz.*, October 15.

The *first* of these articles is an excellent article (illustrated by numerous photographs) on the General Service and Staff College at Fort Leavenworth Kansas, a school which is doing such splendid work in training officers for service. The practical work, especially bridge and raft building, and the problems in tactics are particularly interesting and useful.

The *second* article contains a good collection of practical problems for ordinary garrisons.

The next seven articles are all valuable and interesting. but as they are from our most popular service journal, it is not necessary to analyze them here.

The *ninth* is a very important article, setting forth the differences liable to arise in target practice in time of peace and actual firing in time of war.

The articles on the recent maneuvers are of special significance and indicate the interest in the subject as well as the amount of work accomplished.

The *eighteenth* contains some remarks by General French, of the British Army, on the necessity for efficiency in an army, which, coming from so high an authority, are worthy of note by us:

"Lieut.-General Sir John French has issued the following memorandum to the 1st Army Corps:

"In the following memorandum I propose to summarize shortly those points which, in my opinion, demand chief consideration by Divisional, Brigade and Regimental Commanders.

"The great object we have in view is to be ready in all respects to take the field, in the most efficient condition, at the shortest possible notice, but the smallness of our numbers renders a higher than ordinary state of efficiency necessary. In war, as it is to-day, efficiency makes up for numbers in a far greater degree than it has ever done before. Ten thousand efficient troops should defeat 30,000 inefficient. The British officer and soldier must realize that they are called upon by their country to face an even greater disproportion of numbers than three to one, and they must be prepared for all eventualities.

"1. The first point to which I desire to call attention is the necessity for some knowledge of the art of war in its higher development

permeating all ranks of the Army Corps. During the past season my great endeavor has been to set schemes and work out problems which might illustrate the great principles of war. My object has been to stimulate the intelligence and cultivate military instinct by inculcating those principles to the utmost.

"2. I think the events which we are now witnessing in the Far East illustrate the principle upon which I lay so much stress. If there is one feature in connection with the success of the Japanese, which strikes the onlooker more than another, it is the impossibility of connecting the whole credit of success with the name of any one particular man. No Marlborough, or Wellington, or Napoleon has arisen, but we see instead the spirit which actuated these great masters of war influencing all ranks of the Japanese army.

"AS TO THE CAVALRY.

"I would remind Cavalry officers that their great strategic use in war is to be the eyes and ears of the army to which they belong. If, as I have tried to show in the foregoing remarks, knowledge of war on a large scale is necessary for all, the principle applies with threefold force to the Cavalry soldier. Cavalry leaders of all grades must understand the great principles upon which armies are moved in a theatre of war.

"Turning to the tactical role of Cavalry, the splendid firearm which they now possess will give them opportunities on the battlefield which they have probably never had before. There is, however, a time and a place for its use, and I trust Cavalry soldiers will never forget that their success will, in the future as in the past, depend upon their *elan;* that their principal power lies in the condition and speed of their horses, and the precision and order of their attack

"ARTILLERY PERFECTION.

"We have had during the past season some very interesting and instructive "Artillery" days. The Corps Artillery has also had much practice in fulfilling its proper role with the Army Corps, whilst the Divisional Artillery has done valuable work in conjunction with the other arms under their own Divisional commanders. It is satisfactory to note the continued good effect which has been produced by the system of attaching Artillery Brigades permanently to Divisions. This is seen principally in the closer mutual understanding (so marked a feature of the past year's work) which has been arrived at between Artillery and Infantry commanders.

"I cannot too strongly urge Artillery officers to improve this mu-

tual understanding to the utmost of their power. I believe it to be one of the great secrets of success on the modern battlefield.

"The points to which I wish Artillery officers to turn their earnest attention are:—

"1. The perfecting of the means of communication between widely dispersed brigades, batteries, or even sections, in order to combine unity of command with the most effective fire.—How this is to be done, whether by field telegraph, field telephone, signalling, or orderlies or by a combination of all of them, is perhaps the most important subject which can occupy the thoughts of Artillery officers before next season's work commences.

"2. The question of effective concealment of guns in action.—I have often before called atention to our experiences in this respect during the late war. We can all remember how splendidly the Boer guns were concealed and how it was often utterly impossible to locate them, at any rate for a long time. Almost the chief value of smokeless powder is lost if the principle of concealment is not strenuously observed. My observation of the work of the Artillery during the past season leads me to think there is considerable room for improvement, and I trust Artillery officers will give the matter their serious consideration.

"3. The employment of indirect fire.—Indirect fire, if it can be rendered thoroughly effective, must be of very great value; but to render it effective the most important point for attention is to improve the facilities for observing and communicating the effect of such fire.

"INFANTRY INTELLIGENCE.

"The greatest necessity of all is that company commanders and subaltern officers of Infantry should enter intelligently into the general scheme of attack or defense, and to do this they must possess a sufficient knowledge of the principles upon which attack or defense are conducted. They must understand the why and the wherefore. They must know whether, in the part of the field in which they are operating, the attack is to be pressed home, or is only a holding attack. They must realize the comparative importance of the one and of the other. They must be alive to the enormous importance of covering fire and mutual support. They must understand how to use the ground to best advantage, and the enormously increased power of enfilade fire.

"All these points must not only be to them, as it were, second nature, but they must so insist upon their practice during company and battalion training, and must so impress them on their non-com-

missioned officers and men, that to these also such principles become instinctive.

"The instinct of all Infantry soldiers should be to take advantage of cover, and to avoid open ground."

The *twentieth* article is a resumé of an article by one of the best authorities in gunnery in our navy:

The current issue of the Proceedings of the U. S. Naval Institute contains an important article which will be read with interest and profit. It is contributed by Lieutenant Commander W. S. Sims, U. S. Navy, whose connection with gunnery training in the Navy is prominent and intimate and naturally gives the quality of enlightenment and the tone of authority to his paper, which is entitled, "Training Ranges and Long Range Firing." The purpose of the author is to show that certain cherished opinions regarding gunnery training and long-range firing and range finding are founded, some upon a misconception of the requirements indispensable to success in teaching men to aim accurately, and some upon certain mistaken facts. The article may be regarded also as a reply to certain critics who brand the naval system of record target practice as "trick shooting" and as of no practical value, maintaining that the ranges for record practice should be largely increased; that the ships should fire in a sea way; that there should be no line of buoys; that the target should be under way; that ammunition should not be wasted upon cut-and-dried shooting, and, in a word, that all firing should be at battle practices, in order that our gunnery training may always be of a "practical nature." Lieutenant Commander Sims finds there is a persistent tradition of opinion that the famous man behind the gun (the gun-pointer) should be a real marksman (not simply the man that points the gun), and should be trained to estimate the distance of the enemy, to observe the fall of his shot and correct the sight-bar setting accordingly, to allow for the change of bearing due to the speed of his ship and that of the enemy, to estimate and allow for the force of the wind, etc.

Lieutenant Commander Sims makes this summary of his conclusions and in the article he expands the subject which he has thus succinctly arranged:

"1. Great-gun pointers cannot be trained to be efficient marksmen; and if this could be done, we could not utilize their skill on account of the impossibility of their being able to identify the splash of their own shots when many guns are firing, because this requires an uninterrupted view of the projectile during its entire flight; which can be obtained only from a comparatively elevated position, well above the smoke and hot gases from the guns.

"12. In order to train new pointers and maintain and test the skill of old ones we must always fire at training ranges; and this practice can never be abandoned without an immediate loss of accuracy in aiming which is the first essential to the success of gun-fire at sea; for if the pointers are not both skillful and reliable, all firing at battle ranges is practically useless as a training of the 'ship' in the second essential requirement—accurate range-finding. For upon accuracy of pointing and accuracy of range-finding depends the success that it is possible to achieve with the guns you are given to shoot with.

"You must train your pointers always to aim accurately, then train your 'ship' to get the maximum results from their skill. At long ranges, even perfect pointers would be useless on an untrained 'ship' and vice versa.

"The foregoing explanations refer only to the vertical errors due to errors of pointing, errors of the gun and errors of range-finding; but, while these are not so easy to avoid as lateral errors, still the latter present many difficulties. The most serious of these can be compensated for only by fitting the guns with properly designed sighting appliances. It follows therefore that long range firing, underway, carried out with guns not so fitted, is profitable only to the manufacturers of ammunition."

The *twenty-first* article contains much that is interesting, but we have space only for a brief quotation regarding two points that probably came into play at other maneuvers, namely, the lack of transportation and the value of acetylene lamps in camp:

"There was not sufficient wagon transportation to do the work satisfactorily, though it was finally done by the teams and teamsters working almost continuously day and night from Saturday morning, September 3, until Sunday night, September 11. During this time the teamsters hardly averaged five hours' sleep, and the teams were practically on the go day and night.

"It was noticeable that with contract teams and teamsters it was difficult to get the best results out of such material as was furnished, for the teamsters seemed to be lacking in intelligence, though they were willing and worked hard.

"Notwithstanding the orders requiring the State troops on leaving camps to thoroughly police their camps and fill in their sinks, many of them did not do so, and an order was issued after their departure, requiring those regular troops remaining in camp to do this work for them. It appears to me that it would have been better to have hired civilian labor to do this work rather than put it upon the troops of the Regular Army.

"I recommend the use of actylene lamps in maneuver camps for the offices of the headquarters, staff and depot. They can be readily handled, with less inconvenience, and give better light than the oil lamps do, and are not subject to breaking of shades and chimneys."

The *twenty-second* (like the eighteenth), relates to General French's views on military training.

MILITARY HISTORY, STRATEGY AND TACTICS.

1. Troop Leading as Affected by Developments in Science.—*Kriegstech. Zeit.*, 7.

2. The Development of the Science of Strategy in the Nineteenth Century.—*Int. Rev. Suppl.*, 64.

3. The Lines of Battle in Cavalry Tactics.—*Same.*

4. The Interruption of a Battle.—*Same.*

5. Five Years a Dragoon.—*Jour. Cav.*, October.

6. History of the Fifth Cavalry in the Spanish-American War.—*Same.*

7. Romances of Two Wars.—*Same.*

8. The British Cavalry and the Lessons of 1899 to 1902—*Jour. Cav.*, October.

9. The Cavalry of the Future.—*Same.*

10. The Era of Iron-Clad Warfare.—*Jour. M. S. I.*, November-December.

11. German Ideas on the Role of Cavalry.—*Same.*

12. Remarks on the New Tactics.—*Same.*

13. The Financial Side of the Russo-Japanese War.—*Mar. Rund.*, October.

14. The *Askold* in the Battle at Port Arthur.—*Same*, August 10, 1904.

15. The Evolution of Modern Strategy.—*Unit. Serv. Mag.*, October.

16. The Problem of Numbers.—*Same*

17. Boer Tactics in Germany.—*Jour. Inf.*, October.

18. Notes on the Russo-Japanese War.—*Jour. Arty.*, September-October.

19. The use of Field Artillery (Capt. W. G. Haan, Gen. Staff)—*Same.*

20. Employment of Artillery Fire (Capt. E. Hinds, A. C.).—*Same.*

21. Minimum Distance between a Battery and its Mask.—*Same.*

22. Defense of Harbors against Torpedo Boat Attack.—*Same.*

23. The Russo-Japanese War.—*Mil. Mail,* September 23-October 14; *A. and N. Jour.,* October 29-November 5; *A. and N. Gaz.,* October 8.

24. A Strategical Analogy.—*A. and N. Gaz.,* October 8.

25. The Value of a Bayonet.—*Same,* October 15.

The first four of these articles are well digested studies of the subjects to which they relate, and are worthy of careful consideration by military men.

The next five, relating to the Cavalry, are also important.

The *tenth,* by General J. P. Farley, relates to events around Charleston in 1863 and subsequently.

The *fifteenth* article is a continued one, by Colonel Maude. It will probably soon appear in book form.

The *sixteenth* furnishes a few points which we quote:

"Let us return to our point and see how it is that we so seldom get the right kind of man to enlist.

"First take the barrack accommodation. The windows of many of our barracks are utterly destitute of blinds, a luxury that even workhouses can boast of; there is no real privacy of any sort for a man below the rank of color-sergeant within the precincts of the barracks. * * *

"I would suggest that instead of spending more money on a small increase of the soldier's pay, it should be used in another way. First, the interior arrangement of the barracks at all stations throughout the Empire should be vastly improved. * * *

"Tommy has ever proved himself both ready and willing to endure hardships without a murmur when the necessity for such endurance has arisen, though he likes to have his honest grumble when he considers he has been unnecessarily 'messed about,' as he terms it, yet the late war in South Africa amply proved to any studious observer of the soldier's habits that the man most used to luxuries at home submitted the most cheerfully to the inconveniences and discomforts of active service.

"To popularise soldiering, I would abolish the performance of any fatigue of a servile nature by soldiers serving with the colors, such as pioneers' fatigues, coal fatigues, wash-house and cook-house orderlies, etc. * * *

"There is another very important point upon which the authorities should take the strongest action, and do more than is being done at present—they should endeavor to guarantee employment to all men, without exception, who have served a certain fixed period with the colors and borne a uniformly good character. At present

a would-be recruit, who looks forward to the future at all, must of necessity perceive, unless he be totally devoid of intelligence, that after he has spent seven or nine of the best years of his life in soldiering, he will be thrown back on civil life, without a trade, a burden to his friends and relations, and with small hopes of obtaining any employment."

The other articles explain themselves sufficiently by their titles, and although valuable (especially those by Captains Haan and Hinds), will not admit of analysis here. But the last two articles we desire to give a brief account of, since the originals are not readily accessible to our readers.

The *twenty-fourth* is an analogy between the Russian plan of campaign in the present war and Grant's in 1864-5:

"The plan of campaign for 1904 drawn up by the General Staff was excellent. It consisted of two parts, Kuropatkin's march from Liao-yang to the sea and Gen. Linievitch's campaign against Korea from Vladivostok, which, had things gone well, might have led to the surrender of the Japanese armies and the speedy termination of the war. The scheme recalls the 1861-65 campaign in the North American Civil War, when the armies of the North, in precisely the same way, were not concentrated into one enormous mass, but divided into two independent armies: the northern one, Grant's, and the western, Sherman's. In this instance it was Sherman's celebrated march against the rear of the Confederates from the Mississippi to the Atlantic which decided the fate of the campaign in favor of the Northerners, and both the Confederate armies, driven in by Grant from the north and Sherman from the south, were forced up against the sea and compelled to lay down their arms. Gen. Linievitch's campaign into N. E. Korea has not, says the *Viedomosti*, been crowned with the success that attended Sherman's victorious march —it has been broken off at its very commencement, and his advance guard (2,000 men with six guns) has, according to Reuter, already left Khamkhun on the return march northwards. The reason at the bottom of this failure, in consequence of which the Russians have to relinquish all hopes of terminating the war in the present year, is the same as caused their want of success in the first period of 1877—the insufficient forces with which they undertook an offensive campaign.

"In the Civil War of 1861-65, Sherman's march against the Confederate rear was a brilliant success, chiefly because Grant's army on their strategic front (the north) was very superior to the Southerners (Lee's army) and drove them southwards. In the present

campaign Gen. Linievitch was preparing to act against Gensan and Seoul, while in the main theatre of war, Southern Manchuria, Marshal Oyama's force was very considerably superior and Gen. Kuropatkin not only failed to drive the Japanese back into Korea, but was himself compelled to retire northward step by step. The other important difference between the present campaign and those of Sherman and Grant in 1864-65, remarks that *Viedomosti,* is the fact that the Northerners held complete command of the sea, and were thus enabled, after Sherman's capture of Savannah, to carry out their campaign along the coast-line to Richmond. A movement against Seoul and thence on to the Yalu would be a possibility only if the Russian fleet held the command of the Japanese sea. Gen. Linievitch would then have a short line of communication on land—Gensan-Seoul, 180 versts [120 miles], while from Gensan, which would take the place of Savannah to Sherman's campaign, he should be in communication with Vladivostok by sea. But the Baltic Fleet was late, and Admiral Jessen was unsuccessful at Fusan; the sea is in the power of the Japanese, and an advance on Seoul with a land line of communication 750 versts [500 miles] long, running through mountainous country, is impossible."

The *twenty-fifth* article relates to the bayonet:

"The principles of strategy are enduring, and we may say, external, but their ultimate effect depends upon conditions which change and are variable—upon topography, upon resources, and more than all upon new mechanisms and arms. It was, perhaps, inevitable that those who had been the witnesses of great and strenuous events in circumstances of special character should be inclined to deduce from them lessons which might seem of universal application. Thus it happened, after the South African War, that there was a disposition to believe the old order of attack had changed entirely, that, in particular, the bayonet had lost its value, and that the decision of an attack must depend upon artillery and rifle fire alone. Even before the war the evident qualities of the new long-range magazine rifle, with its comparatively flat trajectory, had caused the bayonet to decline in military esteem, with the result that its use in training had become a matter of studied skill and an exercise of individual proficiency. The idea of the surging rush of men to the attack—of the combat *corps-a-corps*—seemed even for a time to have been lost. One eminent writer on the war declared without hesitation that an absolutely certain lesson was that, outside the artillery, there was but one weapon in the world—the magazine rifle. Many soldiers recognized that this conclusion had been arrived at hastily, and the

bayonet has since tended to resume its old place with new instructions as to its use.

"There is abundant evidence that the weapon has been used in close action by both Japanese and Russians in the operations in Manchuria. In General Oku's despatch descriptive of the battle of Kinchu he said that his troops engaged in a hand-to-hand conflict with pistol, sword, and bayonet. Descriptions of later actions show that the bayonet has acted its former part, and in the fighting at Liaoyang it was employed with considerable effect in the attempts made to carry the Russian positions. General Kuropatkin reports, in regard to the fighting during the present week, that certain Japanese positions were carried in the night at the point of the bayonet. We cannot be surprised that this should have been so, for no one can ignore the behavior of human nature in the mass in moments of great moral and mental strain, causing men in the strenuous effort, the din and excitement of the charge, even if they be the best of marksmen, to shoot wildly. Where both armies are equal, says a writer of the *Russki Invalid,* rifle fire must be inconclusive, and, in the end, cold steel must decide. General Dragomiroff is well known to have long been an ardent advocate of the bayonet. When he recently said farewell to the Minsk and Volhynia Regiments, on their departure for the front, he used some striking phrases. 'Spare your cartridges, do not waste them. Do not fire to no purpose. Attention! Once more, spare your cartridges; spare them, spare them.' "

ARTILLERY AND FORTIFICATIONS.

1. Firing tests of Krupp 12 cm. Rapid-fire Howitzer, L 12, with Recoil Barrel.—*Kriegstech. Zeit.*, 7.

2. A Safety Igniter for Shell.—*Same*, 7.

3. Firing Against Shields for Field Guns,—*Same*, 8.

4. Spring Return and Hydro-pneumatic Return for Field Guns.—*Same*, 8.

5. Seacoast Gun-carriage Design and Construction (Capt. E. P. O'Hern, Ordnance Department).—Amer. Soc. of Civil Engrs., October, 1904.

6. Ammunition for Cannon (Capt. T. L. Ames. Ord. Dept.)—*Same.*

7. Gun Construction in the United States (Capt. O. C. Horney, Ord. Dept.)—*Same.*

8. Fortifications (Maj. George W. Goethals, Corps of Engrs.)—*Same.*

9. Coast Fortifications.—*Jour. Arty.*, September, October.

10. Field Artillery (Germany).—*Same.*

11. Rearmament of the Field Artillery (Portugal).—*Same.*

12. Japanese Field Artillery.—*Same.*

13. Nitrate of Ammonium Powders and Explosives.—*Same.*

14. Recoil (Gen. J. P. Farley).—*Scien. Amer. Suppl.*, November 12.

15. Report of the Chief of Engineers.—*A. and N. Reg.*, November 12.

We have space to call special attention to but a few of the above articles. The *fifth, sixth, seventh* and *eighth* are by four prominent officers of our army; are classical essays on their respective subjects. They were prepared for reading at the meeting of the American Sosiety of Civil Engineers in St. Louis, during the World's Fair, and will appear in the proceedings of that eminent society.

The last, the Report of the Chief of Engineers, contains a full account of the present state of our sea-coast fortifications.

WARSHIPS.

1. The Submarines of the Principal Naval Powers.—*Int. Rev., Suppl.*, 64.

2. Evolution of the Submarine.—*Jour. Arty.*, Sept., Oct.

3. Submarines.—*Same.*

4. Submarines.—*Same.*

5. Battleships of the Nelson Type (England.)—*Same*

6. Protection of Battleships Below the Water-Line.—*Same.*

7. A Comparison of Late Designs of Battleships and Cruisers.—*Sc. Amer. Suppl.*, November 12.

8. Changes in the World's Navies.—*Int. Rev.*, July; *Mar. Rund.*, October.

The *seventh* of these articles has a general interest, and a few paragraphs are quoted therefrom:

"Permit me to write a few lines *in re* the battleships and armed cruisers at present being designed, laid down, or under construction, both in Great Britain and the United States. I mention the ships of these two powers alone, as they are and always will be foremost in the art of naval architecture.

"In the first place, a good deal is mentioned about the U. S. S. Connecticut, just launched at Brooklyn and under completion. The launching of the above ship eighteen months after laying down the keel plate is a very creditable performance, and so the completion of the ship in forty-two months seems to be assured. There are comparisons made between the Connecticut of the American Navy and the King Edward of the British Navy. Now, taking the five great

qualities of a warship into consideration, and the dates of designing, there is not very much to pick and choose from. The King Edward class was designed first—in fact two or three of the class are now practically completed—whereas the American ship will not probably be completed for eighteen months or two years. In speed the King Edward has an advantage of one-half knot with 1,500 more horse-power, a doubtful advantage I may say, as in the future it seems the line of battle will consist of two classes of ships, viz., the heavy battleship of tremendous power and a fair speed and a lighter class battleship of great speed, hard-hitting power, but less formidable than the heavier ships and less protected, or a class of ship such as the latest designed armored cruisers, of which I shall speak further on, and which are really battleships in disguise. Assuming that the four 12-inch guns of both ships are equal, the next gun to consider is the 9.2-inch on the King Edward and the 8-inch on the Connecticut. Now the 9.2-inch is a far more formidable weapon than the 8-inch. It can be handled as quickly, is as accurate, has far greater hitting and penetrating powers, and is, as it ought to be, weight for weight, a far more formidable gun. Putting the two guns together, the ship which had the more powerful weapon and greater speed would have a decided advantage, even discounting the fact that there would be eight 8-inch against four 9.2-inch. But when it comes to ten 6-inch in the King Edward and the twelve 7-inch in the Connecticut, the case is somewhat changed, and I think there is no doubt that, taking every point into consideration, including the rapidity of fire, the 7-inch gun is certainly superior to the 6-inch. I consider the gun power all round of the Connecticut slightly superior to the King Edward. In the matter of coal endurance, both ships are practically the same; the British ship is slightly superior. In the matter of defensive armor, it is a vexed question; one ship in certain armor has advantages over the other. The belt of the American ship is thicker than the British; the protective deck is also thicker. Above the belt, on the side, it is thicker on the King Edward, and so on. Each designer has carried out different ideas. * * *

"Then to make a comparison with the Connecticut and the Lord Nelson class, just designed and being laid down in Great Britain, it shows the advantage in the latter designed ship, a description of which is as follows: * * *

"The Lord Nelson class will displace on normal draft 16,500 tons, and at 16,500 I. H. P. natural draft speed 18 knots. Her belt will be 12 inches thick, with 8 inches up the side. The belt is complete, but thinner at the bow and stern, so that in view of the fact that the

artillery of the Lord Nelson will be of such immense power, there is no ship in any navy that could stand the battering of such a ship, the 9.2-inch gun in this instance being able to penetrate 12 inches of Krupp steel or the best waterline armor of any ship at 3,000 yards, and capable of getting off from three to four aimed shots per minute. Hence, comparing the Lord Nelson with the earlier designed Connecticut or Kansas class, she is their equal in speed and coal endurance, their superior in defensive armor, and far superior in gun power.

"As far as armored cruisers are concerned, the modern armored cruiser nearly approaches a battleship; in point of fact, in many instances they are fast second-class battleships, capable of defeating many of the older first-class battleships. Take, for instance, the U. S. S. Washington."

MILITARY GEOGRAPHY.

1. The Panama Canal.—*Jour. M. S. I.*, November-December.
2. The East Siberian Railway at the Beginning of the War.—*Kriegstech. Zeit.*, 8.

COMMUNICATION AND TRANSPORTATION.

1. Military Telegraphy in Australia.—*Kriegstech. Zeit* 7.
2. Spark Telegraphy, Its Value for Army and Navy.—*Same.*
3. Electrical Automobiles.—*Same.*
4. An Improved Coherer.—*Same.*
5. Free Balloons with Balloon Net.—*Kriegs. Zeit.*, 7.
6. Light Telephony.—*Same.*
7. Electromobiles, Krieger System.—*Same.*

SMALL ARMS AND EQUIPMENTS.

1. A Satisfactory Field Uniform.—*Kriegstech Zeit.*, 7.
2. A Panorama Field Glass.—*Same.*
3. Use of Carbine Sights.—*Jour. Cav.*, October.
4. Necessity for a Pocket Range-finder.—*Same.*
5. The Armament of Field Artillery.—*Kriegs. Zeit.*, 8.

MISCELLANEOUS.

1. War Dogs.—*Jour. Inf.*, October.

EDITORIALS.

Twenty-one vessels of various types, including five battleships, four armored cruisers, five torpedo boats, two training ships and one training brig, will be added to the navy during the coming year, according to the estimates of the Navy Department. In size and number these compare most favorably with preceding years, and the new vessels will do much toward making the American Navy one of the strongest in the world. The Department officers are pleased with the outlook and hope that all of the vessels will be completed as predicted. It is probable, however, that when the year is ended several of the vessels will not be finished, as something frequently arises to prevent the completion of a vessel at the time expected.

Three of the ships, the training vessels, are being constructed by the Government. The training ship Cumberland is being built at the Boston Navy Yard and is scheduled for completion on May 1. The Intrepid will be finished two months later at Mare Island. The brig Boxer, under construction at the Portsmouth, N. H., yard, will be completed on July 1.

Five torpedo boats, the Stringham, Goldsborough, Blakely, Nicholson and O'Brien, are near completion and will be ready for service soon. The last report of the Bureau of Construction showed that all of the torpedo boats were 99 per cent. finished, with the exception of the O'Brien, which was 98½ per cent. It is expected that all of the boats will be in commission early in the year.

The battleships to be put into commission during the year, if finished as expected, are the Virginia, on Oct. 15, the Nebraska Oct. 15, the Georgia Dec. 12, the New Jersey Dec. 3, and the Rhode Island Nov. 12. The addition of these five vessels will make the total number of battleships in the navy 17.

The armored cruisers are the Pennsylvania, to be completed Feb. 13, the West Virginia, Jan. 30, the California, Dec. 10, and the Maryland, March 12. Two protected cruisers, the Galveston and Charleston, will be completed on April 1 and June 17, respectively. The gunboat Dubuque is scheduled for completion on Jan. 21, and the Paducah on April 21.

* * *

Naval officials are deeply interested in the announcement made at the Department that armor plate manufactured by the Midvale Steel Company, of Philadelphia, under a new process has successfully passed tests conducted by the Government at Indian Head.

This means that the Midvale company will now be allowed to fill a conditional contract for 6,000 tons of armor plate at a price $44 a ton less than that offered by the Carnegie and Bethlehem Steel companies—a saving on the whole contract to the Government of $264,000 compared with recent prices paid.

Navy officials see in this event great possibilities in the more rapid and cheaper construction of fighting ships for the navy. The Government has been using an average of 16,000 tons of armor plate per year for the navy in the last few years.

The former price of this plate furnished by the Carnegie and Bethlehem companies was an average of $543 per ton, but since 1899, when the Krupp process was discovered and made the standard, the Government has paid an average of $420, to which must be added a royalty of $22 a ton. Consequently, if the Government were to get its full quota of 16,000 tons at the price which will be paid the Midvale company, it would mean a saving of more than $700,000 annually. There are rumors, however, that the Midvale company, under its new process, will bid even much less than $398, and that the consequent saving to the Government will be a larger sum.

When the Midvale company bid less than $400 a ton, last year, it created a surprise. In some quarters it was freely prophesied that because of the royalty on the Krupp steel the Midvale people would be unable to fulfill the contract, except at a loss. Then came rumors that the Midvale company had discovered a new process under which it felt confident it could make armor satisfactory to the Government at the price named.

A few weeks ago the company requested the Government to make a test in the regular way at Indian Head of some sample plates of armor made under this new process. This was done under the supervision of Lieut.-Commander McLean, and on the strength of his report Admiral Mason, Chief of Ordnance, announces that the armor has successfully undergone all of the tests demanded by the Government for armor plate intended to be used in fighting ships.

★ ★ ★

The gripe and guard of a drawn sword stamped in gold upon the back, and a dove bearing an olive branch impressed upon one side, indicate, in sym-

bols brief, the character of the hero of a modest little book which records for the instruction of youth and the perusal of admiring men the story of a short but most eventful and distinguished American life. Few things are more gratifying to the reviewer than to find his labor one in which casual inspection gives way to absorbing interest, and in following the career of Brevet Major-General William Francis Bartlett, United States Volunteers, from the Junior class in Harvard College, in the beginning of the year 1861, until Sunday, the 17th day of December, 1876, when he called around him his beloved family and faithful friends and bade them a last farewell, he not only fails to note the flight of time, but feels grateful for the cause. Stony must be the heart of the reader who rises from this book without feeling himself a better man for having opened it, and oblivious the mind that is not filled with wonder at the heroism, the gallantry, patriotism, suffering, generosity, candor, and grand endurance of this noble fellow-being. It has been said that "the Massachusetts of this generation has bred no more heroic character" than now lies buried in the beautiful cemetery at Pittsfield, and to this verdict we have no exception to take.

Soldiers of our greatest war can revel in the contents of this volume as the stricken revel in the luxury of grief. Scarcely a page that does not link the memory to it, and bring back keen and proud recollections of those red-letter days. From captain at twenty-one to colonel at twenty-two, and from brigade to division at twenty-five, is in itself astounding, and when we are told that one leg carried him onward from the 24th of April, 1862, to his capture in the debris of the mine at Petersburg, where his troops fought the enemy with bayonets and bottles after their ammunition was exhausted, we are speechless. Why ever again go beyond the limits of this fair land for an example of military bravery and devotion?

General Bartlett is recorded as having been born in Haverhill, Mass., June 6, 1840. He married Miss Mary Agnes Pomeroy, in Pittsfield, on Oct. 14, 1865, and left six little children. Business misfortunes and broken health marked the last years of his life, and he had to face the prospect of leaving his darling wife and precious offspring utterly unprovided for. But a nobler patrimony than wealth was his to give, and with a soldierly instinct which never deserted him, the still young man took from his shoulder-straps four silver stars. One he gave to each of his three sons, and the fourth to "his most valued friend," whom we believe and

trust was Lieut.-Colonel Francis Winthrop Palfrey, formerly of the Twentieth Massachusetts Volunteers, his biographer, the author of this book, or rather the skillful artist who has strung upon a silken string the glistening pearls which bear undeviating testimony to the inherent worth of "Frank" Bartlett.

* * *

Two Holland submarine torpedo boats have been contracted for by Secretary of the Navy Paul Morton. At least two more will be arranged for within the next six months. The $750,000 appropriated by Congress for experiment in submarine warfare will be spent in the purchase of the most improved craft of this character.

General characteristics of the new boats are kept secret, beyond the fact that they cost $200,000 and $250,000, and are respectively 81 and 105 feet in length.

They will be constructed by the Fore River Shipbuilding Company of Quincy, Mass., the president of which is Francis T. Bowles, former Chief Constructor of the navy.

When Secretary Morton took charge of naval affairs, last July, he found that the expenditure of the submarine appropriation was being eagerly sought by the Holland and Lake Submarine Boat companies. Arrangements were made for competition between boats of the respective types, but first the Holland and then the Lake men failed to produce their boat.

The Lake company has several submarines in course of construction at Newport News. Some of these are intended for foreign governments. The Lake submarine, the Protector, has already been sold to Russia.

Submarines of the Holland type now in commission in the United States navy are the Porpoise, the Shark, the Adder, the Moccasin, the Grampus, the Pike and the Holland. All are of 120 tons displacement and sixty-three feet in length, except the Holland, which is of seventy-three tons displacement. The new craft, being eighty-one and 105 feet long respectively, will be faster and will carry more torpedoes. They will be able to run submerged for a greater length of time and will carry larger crews. They will be more habitable, which is regarded as a highly important feature.

All the latest improvements in submarines are called for in the contract, which was drawn by Chief Constructor Capps, of the Navy Department. When these boats are completed the United States will not lead the navies of the world in this respect, but it will make a respectable showing.

SERVICE SALAD.

HARA-KIRI: ITS REAL SIGNIFICANCE.*

HARA-KIRI! The word has been before us, of late, at every turn. In translating it the English equivalent is often given as "disembowelling"—a ghastly term, and, moreover, inappropriate. "Happy despatch" was formerly the phrase employed; it is, as it seems to me, a far better term, though how that expression originated no one seems to know. The matter itself, to the Western notion, is already not an agreeable one to talk about, but the recent translation of the term makes it worse. It may not be wholly without interest for the reader if I try to explain, though with some diffidence from the very nature of the subject, the true significance of the act, and at the same time endeavor in some degree to account for the sensitiveness displayed by my own country-people at the misapprehensions produced by a wrong translation.

Literally, of course, *hara-kiri* is "belly-cutting," and this is the expression in common use, but *kappuku*, or more usually *seppuku*, is the word employed by persons of refinement, the actual meaning, however, being the same as *hara-kiri*. *Seppuku* and *kappuku* are expressions coined from Chinese There are vigorous Anglo-Saxon terms in use in Great Britain which people of taste often prefer to replace—at afternoon tea, for example—by something, perhaps equally forcible, derived from the Latin. The instance is similar.

Seppuku was, in the feudal period, an honorable mode of committing suicide. It was unknown to the Japanese of ancient days, and was a custom which grew with the age of chivalry. With us, in the Far East, to hang oneself is looked upon as the most cowardly of all methods of self-destruction, and drowning oneself or taking poison was deemed to be no better. Even to shoot himself was, in a *samurai*, regarded as a base and ignoble way of shuffling off this mortal coil; it was vulgarly spoken of as *teppo-bara*, (*h* is changed into *b* for euphony), an abbreviation of *teppo-hara-kiri*, in other words, *hara-kiri* by means of a gun, though in reality the throat, and not the *hara*, was the usual spot assailed in this case.

There was never an instance, so far as can be traced, of *seppuku* by a female, and the honorable equivalent thereof for a *samurai* lady was death by a stab in the throat from her own dirk, a weapon she generally carried in her girdle to be used in time of need. Where a Roman dame would in ancient times have plunged her dagger into her own heart, a Japanese heroine preferred to thrust the weapon into her neck, and there is no record of either male or female in Japan ending existence in the fashion that is so often depicted in Western novels, and less frequently, perhaps, in real life.

Seppuku was not only a mode of self-despatch, but was prescribed as a

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form of capital punishment for all of *samurai* rank. Beheading, and still more hanging, were forms of execution that might not be employed in cases of offenders of the military classes, whose position, even to the last of their existence, merited respect; and when, in very extreme cases, the crime of which a *samurai* had been convicted was heinous enough to deserve exemplary punishment by condemnation to an ignominious death, the culprit was first stripped of his rank and privileges as one of the *samurai* class. No *samurai* was ever to be beheaded; still less to be hanged.

Naturally under such conditions the act of *seppuku* came to be invested with much formality, and cases in which the most elaborate etiquette had to be strictly observed were those when a daimio, *i. e.*, a feudal baron, or *samurai* of particularly high standing, was called upon by the proper authorities to despatch himself in this way in expiation of some political offence. A special commissioner was then sent from the proper quarters to witness the due execution of the sentence, and a *kai-shaku-nin* was chosen to assist the principal in ridding himself of the burden of life. This person was selected by the condemned from the circle of his own immediate relatives, friends, or retainers, and the *kai-shaku-nin's* office was an honorable one, inasmuch as he was thereby privileged to render a last service to his comrade or chief.

There was always a special apartment or pavilion prepared in which the ceremony had to take place; a particular dress, designed for use only on these melancholy occasions, had to be worn; and the dagger, or short sword, was invariably placed before the seat of the condemned on a clean white tray, raised on legs, termed *sambo*, which in the ordinary way is a kind of wooden stand used for keeping sacrifices offered to the gods, or for some similar solemn purposes. The actual cutting open of the body was not essential, a trifling incision in a horizontal line six or seven inches, or rarely in two lines crossing each other—the more superficial the better, as proof of a light and skillful touch—being ordinarily made, followed by a deep cut in the throat. As a rule, however, immediately after making the incision in the abdomen the condemned made a slight movement of his disengaged left hand, and stretched his neck forward, as signs to the *kai-shaku-nin* to do his office; perceiving which, the latter, who stood by with his sword ready poised, instantly struck off his principal's head.

In Japan there is no need to speak directly of either *hara-kiri* or *seppuku*, as the euphonism "ku-sun-go-bu" is often employed—literally nine inches and a half, which was the proper length of the dagger to be used on these occasions. The weapon was always wrapped in some sheets of pure white paper, only the extreme point being exposed, and it was correct to hold it, when making an incision, in the right hand, not by the handle, but by the middle of the paper-wrapped blade. How to sit, how to bow to the spectators when about to commence the awful task, how to unfold reverently the part of the clothing which covers the upper part of the body, how to wrap up the dagger, and how to make the requisite signal to the *kai-shaku-nin*, were all matters on which the utmost nicety was enjoined, and were part of the instruction which every *samurai* was obliged to receive from the master of military ceremonies. *Hara-kiri*, indeed,

was to the *samurai* a matter involving an appalling amount of ceremony. The end of the world-famed "Forty-eight Ro-nins" was reached by *seppuku* in the same way; each died by his own hand. They were given in charge of three daimios, in three separate groups, and on the appointed day each group killed themselves simultaneously at an appointed hour, but each individual one after another, in specially erected pavilions provided in the gardens of the Yedo residences of the three barons. The tale so often retailed in popular story books, that they all committed *seppuku* around the tomb of their avenged lord, is fictitious, though it is true that they all were buried there.

Perhaps the most notable instance of *seppuku* was that which occurred at Saki, near Osaka, just after the establishment of the new *regime* in Japan, when a number of young *samurai*, some twenty in all, if I remember rightly, who had attacked the French, were ordered by the Government to expiate their crime in this fashion, in the presence of the French Minister, whose rage it was necessary to appease. He begged that the carnage might stop when eleven had thus closed their careers.

I need scarcely add that this form of punishment has totally disappeared from our laws, as the abandonment of the distinctive privileges of *samurai*, and the assimilation of all classes of the Emperor's subjects in regard to civil rights and punishments, were decreed. But the practice did not wholly cease for some years after the Restoration in 1867, and I well remember that there was a case in 1871, when a nobleman who was indicted for high treason was sentenced to *ji-jin*—literally self-ending—which was the same thing as *seppuku*.

When *seppuku* was purely a voluntary act the formalities were necessarily much curtailed, and very often the person who thus conceived himself condemned by fate's decree retired to some secluded spot, and there slew himself in orthodox fashion, without making known his intention beforehand, and merely announcing his reasons by letters which he left by his side for all to read. The principle, however, was always the same, and it was the *samurai's* main endeavor at the last to observe due decorum and to conform to the rules in every way that was possible.

There were numerous instances in which men of truly noble soul chose this manner of death. Watanabé Kwazan was one of them. He was councillor to a small daimio, a genuine patriot, and a pioneer advocate of the opening of Japan to foreign intercourse. As a painter, though an amateur only, he stood very high. In 1850, seeing that through his views on the subject of Western civilization his feudal chieftain was bound to be implicated, and that his own self-extermination would be requisite if his lord was to be preserved from the stigma which then attached to any predilection for Occidental methods, Watanabé hesitated not to commit *seppuku*, and thereby saved his master from any such imputations.

Tokano Choyei, a sympathizer and active co-operator with Watanabé, being a well-known physician and Dutch scholar, and Koseki Sanyei, who was also a Dutch scholar and assisted Watanabé by translating Dutch books for him, both died by *seppuku* for the same cause.

Kuruhara Riozo, father of the present Marquis Kido, who succeeded to the heritage of the house of Kido after the death of his renowned uncle on the maternal side, and re-

ceived the honor of a marquisate in memory of his relative's splendid services to the nation, was another instance. Kuruhara was a brave *samurai*. When Nagai Uta, an officer of high rank of Chosiu province, about 1862, advocated the definite opening of the country, Kuruhara sided with him. Circumstances compelled him to show that he had not adopted that view from any base motive, and in the furtherance of this attitude he committed *seppuku*. When he was stationed with the garrison of Uraga, the guarding of which place was entrusted to the Prince of Chosiu at the time of the American advent to the Far East, the present Marquis Ito, then a boy of fourteen, was his subordinate, and when, a few years afterwards, he was despatched to Nagasaki at the head of a group of young *samurai* of Chosiu for the purpose of studying the Dutch system of artillery, young Ito was one of them. Ito was in those days a special favorite of Kuruhara, and knew him well. Ito was almost the first person to rush into the room when Kuruhara died. I have often heard the marquis talking with admiration of Kuruhara, saying what a fine chivalrous character he possessed, and how nobly and with what studied observance of formality he died. To preserve a perfect self-possession at any dread hour is the essence of the *samurai* doctrine. By the bye, Nagai, just mentioned above, was himself one of those who committed *seppuku*. He died thereby at the command of his prince, as a consequence of a political dissension. I may perhaps remark here parenthetically that Japan's evolution of Western civilization was not attained without it costing her much in blood and treasure.

In former days, sometimes, one committed *hara-kiri* by an overzeal for some cause which he advocated merely to demonstrate his sincerity. Earnest as they may be, such cases are, of course, more especially discouraged in our own days and gone out of fashion.

The basis on which *seppuku* was prescribed as a mode of capital punishment for *samurai* was that it was unbecoming the dignity and status of one of the warrior rank that he should be subjected under any circumstances to the rough handling of the common executioner, and, therefore, when the deed of *seppuku* was a voluntary one, the root idea was the same, for it was undertaken in order to avoid ignominy, and to prevent the family escutcheon being stained by any act towards which the scornful might afterwards point a finger of derision. All that the *samurai* might ask of his proud race—like Don Cæsar de Bazan in *Maritana*—was "to die. . . and not disgrace its ancient chivalry," and as the chivalric spirit is still, I am glad to think, ardently cherished in Japan, there are occasions, as the readers of "war news" of the day must have discovered when it yet seems to some to be appropriate to end their days in the fashion of the feudal times, though among private individuals this course is now but very rarely resorted to.

To the Chinese and Coreans *seppuku* is unknown. At the capitulation of Wei-hai-Wei, nine years ago. the Chinese Admiral Ting destroyed himself by smoking an immense quantity of opium. He did this, in accordance with Chinese ideas, to save his men from punishment, and in the eyes of his countrymen it was altogether the act of a hero, and so it was. A Japanese, under like conditions, however, would have died, not by poison, but by *seppuku*. The

three Chinese of high rank who had been implicated in the Boxer troubles of 1900, and committed suicide at the command of the Emperor in consequence of the joint demand of the Powers, died either by taking poison or by hanging. If the event had taken place in the former days of Japan, the death would have been also by *seppuku*.

Terrible as it unquestionably was to witness the act of self-sacrifice was so bound up with the revered traditions of our race that it was shorn in great part of the horrors with which it must seem to readers in the twentieth century to have been invested. Exaggerated and loathsome accounts are even to be met with in popular story books in Japan, scenes in which the victim is depicted as hurling, in a last effort, his intestines at his enemy, who is supposed to have been looking on—a thong in itself quite impossible under ordinary circumstances—and certainly, if it occurred, altogether exceptional. The incision usually made, as I have shown, was quite superficial, a mere flesh wound; and death was due to the injury inflicted in the throat by the suicide's own hand, or to the good offices of the *kai-shakunin;* whose duty as assistant—the idea is perhaps better conveyed by the term "second" in the case of a duel—it was to remove his principal's head with the utmost expedition. Thus to translate *hara-kiri* as disembowelling, or embowelling, is both ghastly and inaccurate in the impression that it leaves on the mind.

Suicide in any form is incompatible with Western notions of right and wrong, and it certainly ought not to be encouraged, though there may be conditions, it would seem to us in the East, when it may be wholly or partially excused.

SUYEMATSU.

SUMPTUOUS SOUTHERN RAILWAY SERVICE.

On Monday, January 9, 1905, the sumptuous Florida winter tourist train, the "Southern's Palm Limited," will leave New York for St. Augustine on the initial trip of its fourth season of successful catering to the needs of a *clientele* that demands exclusiveness and strictly high-class service. The phenomenal development and constantly growing popularity of the "American Riviera," with its balmy climate, open-air *divertissements,* palatial hotels and private winter homes, has been paralleled by the Southern Railway's management in this magnificent get-there-in-the quickest-time-possible train surrounded by every twentieth century comfort and convenience.

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turtle soup and eats his lobster *a la* Newburgh, or diamond-backed terrapin *a la* Maryland. And from the plate-glass sides and end of the Observation Car, at the rear of the train, the traveler looks out upon scenes replete with historic and romantic interest as he is whisked down through the Sunny Southland.

Running through solid and without change, St. Augustine is reached early the following afternoon. Only a trifle over twenty-four hours from New York, with its biting cold and drifting snow, and one alights under skies of Italian blueness, amid fronded palms and the perennial greenness of a land that knows no winter. In addition to its thorough equipment this train also handles a Pullman Drawing-Room Sleeping-Car for Aiken, S. C., and Augusta, Ga., direct. Full information may be obtained by calling on or writing to Alex. S. Thweatt, Eastern Passenger Agent, 271 or 1185 Broadway, New York.

THE LEGION ETERNAL.

Read before the Maine Commandery of the Loyal Legion at Riverton, December 8.

Of shining orders 'neath the sun,
The Loyal Legion stands alone
Transcendently the noblest one.

For since men first together came
In righteous bonds, no other name
Has borne a purer, fairer fame.

A fame that clusters bright around
The brows of leaders, laurel-crowned,
And honored heroes 'neath the ground.

God smiles on these, His chosen band
Of warrior chieftains, who, with hand
And heart unfaltering, saved their land.

For each companion well has won
The meed that will forever run
In hallowed melody—Well done!

When passion thro' the land was rife,
And patriots hung in mortal strife
The strongest led thro' death to life.

Their swords avenging waved on high,
As rang supreme their battle cry;
God reigns—His Nation shall not die!

And where they led in noble scorn
Of danger dire, mid hope forlorn,
A grand immortal name was born.

A name that on thro' ages will
The hearts of men instinctive thrill
And hold its matchless glory still.

For loyalty and honor bright,
And dauntlessness in Freedom's fight,
Shone there in pure resplendent light.

By their resistless might and main,
And giant deeds of heart and brain,
The Union lived and loved again.

And starry banners smiling o'er
A land redeemed from shore to shore,
Sang peace and union evermore.

The Loyal Legion, born in war,
On bloody battlefields afar,
Is manhood's onward guiding star.

The men who in that conflict led
And for the Union fought and bled,
Tho' passing on, are never dead.

Their swords are sheathed in sweet accord,
Their lives are reaching their reward,
Their souls are leading to their Lord.

The Loyal Legion must live on
Beyond the great eternal dawn
Of glory, dazzling glories gone!

For God will give each hero grand
A higher, holier command
Than ever held on sea or land.

And foremost still among the free,
Their spirits shall, by His decree,
Lead on through all eternity!

C. P. Rees, *Commander U. S. N.*

THE CAPTAIN'S SONG.

From the Westminster Gazette.

Mary, Mary of the Ships,
All gladness once was thine,
Look down, look down from heaven's height
And guard this ship of mine.

Mary, Mary of the Ships,
All day the wind and sea
Girt up the vessel's heart with pride,
She had no thought of thee;
For all the wonder of the world
Was hers to live and be.
She leapt against the leaping wave,
She clove the surges white,
Rejoicing as a tempered sword
New christened in the fight.

Mary, Mary of the Ships,
Now, in the darkened air,
The sails are like the whispering souls;
The masts reach up in prayer,
The waters shine with all the eyes
Of those who perish there.
The masthead light's against the stars,
But far beneath, apart;
And in the sheets a sobbing wind
Sighs like a breaking heart.

Mary, Mary of the Ships,
As sorrow once was thine,
Look down upon the sea to-night
And guard this ship of mine.

THE COUNTERSIGN.

The guarded Camps of Nod are spread
With snowy tents in stretching line.
"Halt! Who goes there?" the challenge rings,
"Advance and give the countersign!"
And would he pass the sentry's cry,
The friend must answer "Lullaby."

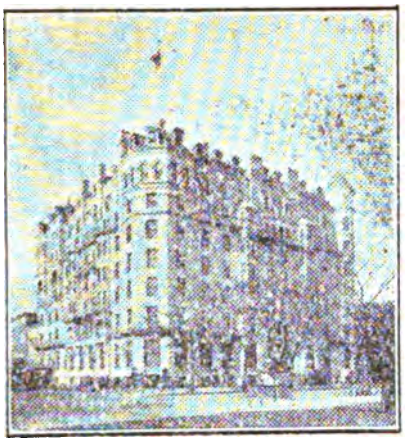
When sinks the sun beneath the West,
The Camps of Nod to fill begin;
All through the night, by twos and threes,
Small, rosy soldiers straggle in,
And each one gives with blinking eye,
The countersign of "Lullaby!"

Ah, when the inexorable years
Are heaped on us like drifted snow,
Within the poppied Camps of Nod
We weary grown-ups fain would go;
But can't remember—vain to try—
The countersign is "Lullaby!"

McLandburgh Wilson.

Rear Admiral THOMAS HOLDUP STEVENS, U. S. Navy

Rear Admiral Thomas Holdup Stevens, U. S. Navy; born in Connecticut, son of Commodore Thomas Holdup Stevens. Appointed midshipman from Connecticut in 1836 and in 1849 became a lieutenant; was ordand to the command of the Ottawa early in 1862. In this vessel took part in the action of the squadron at Port Royal, capture of Forts Walpu and Beauregard, battle of Port Royal Ferry and the different engagements with Fatnall's fleet. For many months after was commander of the Ottawa in the waters of Florida. Received commission as commander in July, 1862, and commanded the Maratanza during the battle of Malvern Hill. In command of Monitor for a short time; next commanded Sonoma in the West India Squadron and captured several blockade runners. In command of the monitor Patapsco, and on September 8, 1863, commanded the boat assault on Fort Sumter. Next commanded the Oneida, and in August, 1864, took command of the Winnebago, in which he took part in the battle of Mobile Bay and the capture of the Tennessee and her consorts. Resumed command of the Oneida and remained in command of the Texas division of the West Gulf Blockading Squadron, participating in the final operations of the war, and returned north in the Oneida in August, 1865. Received stirring testimonials in regard to his conduct from every superior officer under whom he served, including Rear Admirals Dupont, Wilkes, John Rodgers, Daldgren, Rowan, Farragut and Le Roy. Commanded frigate Guerriere after the war, then the Navy Yard at Norfolk, and then the Pacific Squadron. Retired May 21, 1881. Died May 15, 1896.



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FEBRUARY, 1905.

NOTES ON JAPAN.

BY MAJOR MORDRELLE OF THE FRENCH COLONIAL INFANTRY.

Extracts from Notes taken during the Chinese Campaign of 1900-01.

(*From the Revue des Troupes Coloniales.*)

Translated by Lieutenant L. B. Moody, A. C.

On the 29th of August, 1901, at 10 o'clock in the morning, we arrived at Nagasaki, after an excellent voyage. In port were the Redoutable with Admiral Pottier, the cruiser Guichen, a French gunboat, an English cruiser, a Russian gunboat, four or five steamers, French, German, Japanese and Russian and an American transport coming from or returning to the Philippines.

All the stores were closed as the Japanese had not yet recovered from the festivals of their ancestors, which terminate on the evening of the 28th, with processions, general illuminations, and the burning in the harbor of little boats of straw and paper. In the evening the city and streets were again partially illuminated, as well as the cemeteries on the mountain. The view of the harbor closed on all sides and looking out upon the ocean only through a narrow outlet was a very pretty sight for a holiday evening.

I walked about shopping. Everything is high, dearer than similar articles in Europe. The Japanese have been spoiled by the foreigners coming from China with their pockets full of money. It was not so

with the French who had only their pay and who were obliged to economize. So we were not hasty with our purchases. However, we did our buying at better prices than the others, thanks to our bright and jolly disposition which easily harmonized with the laughable humor of the natives.

Unfortunately Japan makes, especially for export, articles which are hardly worth being looked at. For Japanese art, although less exclusive than Chinese art, resides principally in the finish,—the delicacy of execution. I say less exclusive than Chinese art, for the Japanese know design, seek purity and harmony of lines and they have an idea of effects, which enables them to draw from an artistic assemblage of colors and forms.

There are two or three bazaars in Nagasaki. The counters are taken care of by the proprietors or clerks, and every man or woman has his shelf just like in the "Bon Marche." It is very amusing to see the saleswomen try to attract purchasers and call all their graces into play to induce them to stop at their stall. As soon as a seat is taken, one easily passes an hour chatting with the clerk, who spreads before your eyes all her treasures and seeks to interest you with "This is good, not dear, very nice, very pretty, etc."

Japan is an interesting country—pretty rather than beautiful. There are everywhere green islands with deep inlet waterfalls and picturesque scenes. The customs of the inhabitants are very curious and from certain points of view, that of art in particuler, this country offers to those who visit it numerous subjects worthy of observation.

Unfortunately a stay in Japan for a foreigner becomes less and less agreeable each day on account of the numerous delays and vexations which attend him at every step. The Japanese, in fact, have become possessed of such pride, vanity, and immeasurable conceit that they ignore the first principles of international politeness and have made their country dreaded by all foreigners.

Thus when a boat enters a harbor she is first boarded by the sanitary committee, which consists of five or six good men, who are supposed to be physicians. They are all goldlaced and have the dignity of Punches. Large glasses contribute to give them a most laughable appearance.

You have to line up on deck to be examined by these learned personages—the passengers from amidship to stern; the baggage in the bow. These grave functionaries are inclined not to take any account of the statements of the ship's surgeons and wish to feel the pulse of each passenger. However, they recoil from the unencouraging atti-

tude of the patients and content themselves with a perfunctory examination.

Then comes the boat from the custom house bringing the board of officers of that service, and one of them, moreover, will not quit the ship as long as she remains in port and will be fed and paid by her.

Then finally come the officers (always the officers) of the harbor police who, at Nagasaki, are under the orders of a vessel captain—the harbormaster.

It is only after all these transactions are finished that it is possible to communicate with the shore.

During the Chinese campaign, the French Red Cross had established a hospital at Nagasaki in a magnificent boat rented at its expense. The sick and wounded had already received care in this hospitable establishment for some when the Japanese one fine morning decided that they ought to prescribe the medicine. They presented themselves at the hospital and addressed the director, M. de Valense:

"But you prescribe medicine here?"

"Certainly."

"The practice of medicine is forbidden on Japanese territory to everyone who does not have a physician's diploma."

"The best of care is given to our sick by our doctors."

"Show us their diplomas."

"They are in France."

The affair was taken to Tokio and on account of the distance and the time necessary to get the diplomas the government of the Mikado was willing to overlook them; but ordered that one or two Japanese military surgeons should be attached to the establishment and paid by it (naturally) to see that treatment was prescribed in a rational manner.

An energetic protest followed, which was finally decided in favor of our people.

Consular jurisdiction was abolished in Japan two or three years ago; all Europeans are now subject to the local tribunals. This renunciation of power was due to the initiative of the English who in this affair as in all others, considered only their personal interests and not the common interests of the European nations; but they were deceived by this maneuver, as they were the first victims.

In fact, starting on the assumption that the powers would never submit to local jurisdiction, they conceived the idea of renouncing consular jurisdiction, hoping thereby to gain the goodwill of the Mikado without running any risk.

The powers, in their turn, seeing England setting the example, decided the question was not worth incurring the ill-will of Japan to the great advantage of Albion, who, on the contrary, would be the most affected by the new order of things on account of her numerous interests. The proposition of Great Britain was, therefore, accepted.

Actually, it is impossible for a European to secure justice. The consuls are without power and the least matter has to be taken to the legation, which transmits it to the Japanese minister. The entire nation is combined against the foreigner for whom fair play is unknown. It is possible to see the time when the powers will be obliged to revoke their decision.

To the numerous vexations inflicted by the Japanese may be added the interdiction against taking photographs. An inoffensive tourist who walks out with his apparatus is sure to be apprehended in a little while and to see his outfit confiscated; to say nothing of a large fine and possibly imprisonment.

Photographers are accused of trying to steal the secrets of defense; you take a busy street with its crowd of natives and you do not think you are doing anything indiscreet; but the wise Japanese has seen through your design, and looks much further than that street, that market is only a pretense he irrevocably proves to you that your camera is trained on a work that crowns or is supposed to crown a mountain some dozens of kilometres away. You cannot reply to such arguments and so say nothing.

Sometimes in the country you find yourself face to face with a sign like this: "Expressly forbidden to take any picture, drawing, sketch or note in the military zone."

Nothing remains but to define the military zone, and there is the rub; the sharp Japanese takes good care not to define it and so is able to give free rein to his fancy to the detriment of strangers.

If you conceive the idea of jotting down in your note book the purchase of half a dozen pair of socks, do not let yourself be surprised in that work dangerous to the liberty of Japan; the slant eyes that watch will see the attempt and you will not escape the vengeance of the law.

The Japanese have a great love of cleanliness, which especially appeals to the traveler coming from the middle kingdom, for the Chinese ignore the very existance of this virtue of prime necessity. The natives generally take two baths each day, one in the morning upon rising and the other in the evening after the completion of the

day's work. Even near the cities themselves some kilometres in the country it is not rare to see a whole family about six in the evening making their ablutions pell mell in front of their house. In the cities, without doubt by order of the police, these cares of the person are taken in the houses themselves in the rooms not looking out upon the street. When you enter a store shortly after opening you often see behind a light screen father, mother and children taking their baths in a sort of wooden tub.

Upon the subject of modesty, despite the regulations of the police, the mass of the Japanese population continues to have altogether peculiar views. Life completely in common, the cohabitation and absolute mixing of the two sexes, without any distinction and in a climate which requires very light clothing, have created in Japan a state of mind which is very original and which is not nearly destroyed.

Thus one of my traveling companions, walking in the outskirts of Nagasaki, saw, in a beautiful pool in the cool shade a young girl taking a bath in the simplest costume. Following her example he disrobed and plunged into the refreshing pool at a respectful distance from the young nymph. Just as our bather was coming out of the water in nature's garb, he heard cries of fright and saw the girl running towards him, and presently he removed a venomous insect that had settled upon her. Then the two young people set to rubbing the part of the body bitten by the bug (without the slightest embarrasment manifesting itself on the part of the young girl).

One sees that such customs, such laxity, that the population experiences difficulties in adapting itself to the requirements of civilzation and refuses to adopt the habits and even the clothing of the European. Thus, and they are indeed unfortunate, the coolies whose work consists in drawing a little cart at the liveliest pace are required by the regulations to wear in the performance of their duties a complete suit: short trousers, coat and even waitscoat. This ridiculous outfit hinders them in running and when they are in the country they do not have the least scruples about taking off their clothes; but let them see an agent of the police in the distance and they hasten to re-don their uniform.

Our laws, our customs our institutions and our conventions in Europe are indeed far from perfect; but as the preceeding examples prove, it is impossible to imagine without having seen it to what a ridiculous excess their application may be carried by a people who understand neither their spirit, nor their letter.

Japan was admitted as a great power at the congress which con-

cluded peace with China. It was a rational thing to do for the Japanese troops had followed the Russian troops very closely to the Petchili; they had lent very considerable aid to the defense of the concessions, aside from taking a large part in all the operations which marked the campaign. Japanese interests in the extreme East are very considerable and it would not have been politic not to have recognized them. Besides, this young empire has entered resolutely on the road to civilization and has made common cause with the western nations completely. It would not have been possible to reject her from the concert of the civilized nations. The ambition of the Japanese, blinded by their recent success, which they do not bear with good grace, increases every day. It is becoming excessive and consequently dangerous to the peace of the world.

The Japanese will not pardon the European diplomacy which in 1894, prevented them from completely reaping the fruits of their victory over the Chinese. Their hatred and fury is turned especially against the Russians whom they hold, not with some appearance of reason, responsible for the opposition to their pretentions. They would not hesitate at the present hour* to throw themselves into a conflict if they thought the situation which they occupy, or rather the situation which they aspire to occupy in the far East was menaced. A war against a western power would be very popular in Japan, where it would arouse enormous enthusiasm. In fact, this warlike people aspire only to measure themselves with a serious army and seek an occasion to prove their worth.

Japan pretends to nothing less than a hegemony over all the peoples of the yellow race. Being the first to enter on the road to civilization, she has declared herself to be the natural educator of her brothers in the East, and with that in view she urges China to accept her services. We must recognize that upon this terrain Japanese diplomacy habitually maneuvers and that its influence, at the court of Pekin, despite the unfriendliness which separates the two nations, has made very serious progress since the last war and that it has often fought victoriously against the cabinet of St. Petersburg. The Mikado has recently renewed diplomatic relations with Siam, thus affirming his intention of uniting all the peoples of the yellow race, and seeking every occasion to make the propaganda ring with the idea of "Asia for the Asiatics."

He recognizes then as opposed to his designs on the north of

*These notes were taken in September, 1901.

China; Russia who does not intend to abandon the prepondering situation which she has acquired in Manchuria, Corea, and on the Petchili, and in the south, France which possesses a vast and rich Indo-Chinese empire.

As an immediate objective, Japan wishes to take possession of Corea and prevent any other power, Russia in particular, from forestalling her. The political situation between St. Petersburg and Tokio was much strained in the spring of 1901 on the subject of the Corean empire, and war was even feared. The Japanese officers, letting their uneasiness show in spite of themselves, continually asked the French officers if in case of conflict they would aid their allies. Our magnificent expeditionary corps had made such an impression that its eventual co-operation in a war could not help troubling their minds.

Following the example of Russia who has taken Port Arthur; of England, who is installed at Wei Hei Wei; and of Germany, who occupies Kiao Chou, ready to make a main base on the Shantung, Japan has for a long time cast her desires towards Fo Kien and in the course of the last campaign she has manifested on several occasions her wish to possess Foo Chou or Amoy.

All the attempts made by the government of the Mikado to leave troops at these points have met with such opposition on the part of the powers that they had to be abandoned.

In order to justify their claims to Foo Chou and Amoy, the Japanese point out that they have more than 15,000 citizens at each of these points. Now, let us see how these citizens were recruited. Since the taking possession of Formosa by Japan, the constant increase in the taxes has forced thousands of Chinese to leave the island, who have returned to their original homes that is to say Foo Chou or Amoy. The government of Tokio declares all of these to be fugitives. One will not be astonished that these arguments have had little weight with the powers who have not seen fit to recognize a nationality thus imposed.

Formosa has given nothing but trouble to the Mikado. The island is not nearly subdued, the expenses occasioned by the occupation are heavy and the revenues are very small. This possession is, therefore, far from satisfying the appetite of the empire of the Rising Sun. Moreover, Japan has a surplus population. It is necessary to find outlets for her people, who are crowded to the limit on her territory, and this necessity makes her dangerous to her neighbors.

In what direction will the Japanese people be most likely to direct

their rising ambitions? It is to be feared towards Tonkin, for that is the side where they hope to encounter the least resistance. Numerous Japanese agents have overrun Indo-China and they have recognized its wealth and its future. It is said that our eastern empire has attracted the attention and aroused the cupidity of the government of Tokio.

It is permissable to believe that our colony runs only a relative danger so long as the Mikado remains isolated, for, in spite of its distance from France, to take possession of Indo-China would demand a more considerable effort than Japan on account of its financial resources is in a condition to undertake. Besides the internal situation, always complicated, does not leave her complete freedom in the disposition of her forces. Russia has even more to fear from the rise of Japan than we have and her first care would be to come to our aid. The question has a different aspect if Japan can find an ally who can give her financial support. England seems especially designed to fulfill this role. An enemy of Russia, whose continued growth frightens her rival, France, all of whose advantages are distasteful to her, she makes her interests accord with her sentiments in opposing the adversaries of bellicose Japan who desires to measure herself with a European power and who feels the need of expansion in order to give free play to her latent activity.

Does the Japanese army and navy represent a force sufficient to justify the undisguised ambitions of the young empire of the Rising Sun?

The Japanese soldier is naturally brave, for he belongs to a warlike race who consider the profession of arms as the most noble and who hold it in the greatest honor. The organizers of the Japanese army have, therefore, found in their country an element of the greatest importance which has permitted them, thanks to the remarkable qualities of assimilation possessed by their race, to rapidly organize a respectable force.

But should we attribute to that army such extraordinary value as is willingly recognized by the English, who are seeking an alliance with the Mikado? That would be an exaggeration. In fact, it must be remembered that the Japanese have never fought anyone except the Chinese, that is to say, a people utterly lacking in military worth and totally ignorant of the art of war. They have, therefore, been able to develop and place in execution plans of battle calculated on Napoleonic examples. For upon the battlefield itself, although they do not lack military aptitude, they follow to the letter the recognized

principles of Europe, but they do not seek to understand the spirit of them. Upon the field of battle, the general immediately seeks in history a situation resembling the one with which he has to deal, then he conforms strictly to the tactics used by the victor in the battle he has chosen for an example.

One will easily see that while such proceedings may be able to succeed against the Chinese inert and constantly on the defensive, they would have less chance of success against an active and maneuvering enemy. Besides, it has been noticed in the course of the last campaign that the Chinese, who never awaited the assault of European troops, not only did not retire without opposing resistance before the Japanese but often even took the offensive against. Apparently they feared them less than the soldiers of other nations. To sum up, an excellent soldier, a well organized army; but one whose chiefs have not yet shown that they have completely assimilated the principles of war.

The fleet is powerful as to individual ships; it has great homogenity and perfectly equipped units of combat; its fittings are well chosen and its officers are given a certain amount of instruction. But one cannot make a corps of well instructed and experienced maritime officers having the traditions, the taste for the sea by a simple decree. The maritime disasters so frequent on the coasts of Japan and for which Japanese ships are nearly always responsible on account of their bad mistakes in maneuvering, do not indicate great professional ability on the part of their commanders. Even if it is difficult to handle a single ship it is still more difficult to command a squadron and the Japanese, who also upon the sea have fought only the Chinese, have not given a fair sample of what they might be able to accomplish.

Should we conclude from these considerations that the Japanese army and navy does not constitute a formidable force? By no means. It is necessary, on the contrary, to give the most careful consideration to these newcomers, who may be able to change the course of events in the Orient. We, in particular, who have vital interests in Indo-China, should pay the greatest attention to the military affairs of Japan; but in this connection it seems to me that we should consider the dithyrambic interests of the English press concerning the future allies of Great Britain.

The political situation in Japan is not free from trouble. The continual state of ferment, which reigns in many of the cities and in various parts of the Empire, requires the permanent presence of strong garrisons. For we must not believe that all the Japanese are

of the opinion that every thing is for the best in their country. The malcontents are numerous in the empire of the Rising Sun; and the continual increase of the taxes keeps burning the spirit of revolt which may burst forth at any moment. Many of the people do not look with favor upon the blind copying and adoption of Western customs, a foolish and unreasonable course in the face of self-justifying progress, and long for the ancient manners and customs. However, the government of the Mikado, thanks to its own self respect, thanks to the chivalry of its people, triumphs easily over the difficulties it encounters in its exercise of power; it enjoys a real authority. The Japanese, in fact, have a great national pride which is their principle reserve force, and it is only necessary to flatter this sentiment to set on fire the passions of the population. The government does not fail to make use of this powerful lever in the interests of its designs. The press, which has great influence over the masses, is a great aid and it habitually serves to direct public opinion.

Unfortunately for some time a general tendency to arouse the people against the foreigners has been noticed; the results of this dangerous proceeding are not difficult to foresee and some of them are already felt. A terrible financial crisis awaits Japan. This people have wished to follow too rapidly the path of reform. They have followed servily the western powers and have even wished to surpass them with taking account of the fact that the latter have behind them the reserves accumulated during centuries. It is probably in this bad state of finances that we have to seek to find the reasons which, up to the present time, have prevented the Japanese from hurling themselves upon the Russians, to drive whom out of Corea and to establish themselves as masters of that country they so ardently desire. Actually, in fact, the advantage at least at the beginning of operations, would be with the Japanese, the Trans-Siberian is not completed; the Boxer movement by destroying part of the track has delayed the achievement and the Russians would find great difficulty in bringing reinforcements into the theatre of operations.

On the sea the Japanese fleet is also much more powerful than her rival. How then has the government of the Mikado been able to resist the temptation to provoke a conflict? For the support of the army and navy draws heavily on the budget, and these two instruments of war are ready to fall in line. On the other hand it would be a very good opportunity to detract the attention of the people, who are commencing to murmur and to fill up the budgetry deficit by means of fruitful operations. We can only find an explanation of

this hesitation in the statements of the Russians who pretend that the force of their adversaries is much more apparent than real. The financial situation in Japan will not permit her to undertake a general mobilization or to maintain a long war; on the other hand, the effectives available for a fight to a finish would be seriously diminished by the necessity of leaving large garrisons at home to maintain order.

During the campaign in China the Japanese papers were very naturally full of nothing but praises and eulogies for their troops. All the battles were won by them, even if they had not taken any part in the fight at all. Each sheet sought to outdo its rivals, and the articles about the feats of the sons of the Rising Sun were not always free from interest. One day, among other things, this appeared, "Our men make an excellent showing compared with the armies of the European powers; they take part in the national games and in particular in wrestling, in which, as always, they occupy the first rank for vigor and address." A slightly exaggerated assertion, as a thousand examples, which do not lack humor in the presence of the above prove. Thus, to cite one of them, a bandit arrested one day by a Japanese patrol of eight men, took advantage of a moment of carelessness on the part of his immediate neighbor to disarm him and by blows of the butt laid out the eight yellow Hercules and escaped.

In the course of the campaign, the Japanese were on the lookout for plunder; they soon recognized the good places and always made without hesitation for the banks and pawn shops. They made common property of everything that they could carry away, and ship after ship carried away to Japan the spoils of pillage. Thus Li-Hung-Chang was able to reply with reason to the envoys: "If I only had all that the Japanese and Russians have taken away from us I would be able to pay all your indemnities with ease."

However, the diplomatic Japanese has been able rather easily to win the confidence of the Chinese government; she has known how to bring into play the similarity of races and has had the Japanese accepted, at least in principle as the natural protectors and educators of the Celestial Kingdom. The emperor of China has even written a letter to the Mikado in which he expresses his recognition of the conduct of Japan and her troops during the war and compares it with that of the great powers. He adds that Japan appears to him to be the best example to follow in entering upon the road to reform and that he would be happy to secure from his old neighbor all the advice which he would need in the new course which he has chosen.

French influence is not very considerable in Japan; it is even on

the decrease; we, the first military educators of this people, and not the worst, have been placed in that role by the Germans. We do not see there the result of a reasonable appreciation by the Japanese of our qualities and merits and those of our rival. The small people always turn towards strength and the prestige of a victory always brings them in the train of the conqueror. Japan has not escaped this law.

Following this line of thought, the campaign in China will produce happy results. For our methods of fighting and our tactics have been observed with the greatest care and they have been unanimously declared superior to all the others. The value of our soldier, his instruction and his military education have been recognized in a most gratifying manner, just as our organization has been admired by everyone. So the Japanese, always on the watch for something progressive and anxious to instruct themselves and profit from perfect examples every day, spoke of sending to France a large military commission and of asking the government to admit a certain number of officers into our schools.

*A STUDY OF ATTACKS UPON FORTIFIED HARBORS.**

In making the following study of certain attacks upon fortified harbors is was my object to make an analysis of each campaign, and of them all collectively, in order to attempt to derive well grounded conclusions as to future wars.

It is a fact inspiring confidence in tactical conclusions resulting from historical study, that although the deductions presented in this paper was completed before the outbreak of the present war in the East, nevertheless the operations there have not at all shaken them.

By studying the history of a number of attacks upon fortified harbors at various periods in the past we may see the direction that progress is taking, and precisely as artillerymen observe the course of a ship and then, predicting her position at a given instant, aim and fire a gun with reasonable accuracy; so, by an observation of the battles of the past we may expect before a war, to predict within limits the tactical methods which will be adopted to the ships, guns and defences to be employed. At least, if we cannot go very in this way, there seems no other in which we can go further.

It may be well to say in the beginning that, after studying the operations described and making an abstract of the various accounts of each, a slow progressive change in the tactics of the past seemed sufficiently apparent to indicate grounds for making a correct forecast as to future tactics.

From both the successful and unsuccessful attacks which we shall review it will be apparent that fortified harbors are properly attacked only by joint operations of the army and navy, and we shall see several examples both of the points which must be observed and those which must be avoided in order to secure success.

I shall begin by drawing attention to former operations about Cartagena, United States of Colombia. This place is selected for two reasons. First, there has been a series of attacks there

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of which the first was over three hundred years ago and we may trace the development of tactics on both sides upon the ground with much profit. Secondly, it is of interest because the imperfect government of the country and the strategic situation of the harbor with relation to the Panama canal combine to render it a position which any great power operating in the Caribbean may find it desirable to hold in alliance with Colombia. It is therefore entirely within the range of possibility that the locality may become one of naval importance, as it has been in the past.

As is seen from the map, the city occupies a low level site directly on the ocean, where the surf breaks heavily on the sea front of the fortifications. To the north and east the beach stretches for miles with a shallow lagoon a few yards behind it, and to the south and west is the magnificent harbor with from 8 to 12 fathoms of water, 10 miles long by 3 to 5 miles wide. The harbor is protected by the island of Tierra Bomba which forms a breakwater with an entrance around each end. The northern entrance, Boca Grande, is wide but has shoaled by nature and by artificial means so that for centuries the main entrance has been at the southern end of Tierra Bomba by Boca Chica, which is narrow, crooked and easily defended.

On the land side the isthmus between the lagoon and the harbor forms the main approach to the city and is controlled by the fort of St. Lazar and the lofty hill of La Popa crowned by a heavily built nunnery. It may be perceived at once how many reasons, military and others, led the beseigers in the past to consider an early and successful surprise of La Popa as most desirable.

The city of Cartagena was founded in 1532 upon a fine harbor site and speedily acquired great importance from its commanding situation with regard to the commerce of the Carribean. It is near the Magdalena river, which is the great line of trade to the interior of Colombia, and a canal was cut from a point near Cartagena to the river, so that Cartagena became the seaport for the river trade.

Further, the position of Cartagena with reference to the trade winds and the geography of the Carribean was such that the west coast trade crossing the isthmus at Panama, together with the Atrato river trade, had to work up under the lee of the land as far as Cartagena before it could venture to head off shore to make for the Florida straits. Similarly the trade to Europe from east of Cartagena touched there because it was the last point on the coast

at which the trade winds permitted a call before starting for Havana.

Thus all the commerce of Spain with the north and west coasts of South America and the west coast of Mexico was centered at Cartagena, and its wealth became enormous.

The first attack on Cartagena to be examined was that by Sir Francis Drake in 1586. Drake had been urging Queen Elizabeth to attack the Spanish Dominion over seas for several years, but without success until 1585, when captured despatches revealed to her beyond a doubt the King of Spain's intention of attacking England. Thereupon she directed Drake to set out, and he did so in September, 1585. His plan of campaign, as shown in papers by himself and his companions, was as sound as if he had studied strategy from a book. He proposed by attacking the principal centres of Spanish commerce in the West Indies to capture their treasure fleets, as he had done before, and to divert from Spain to England the stream of tribute upon which Spain relied to prosecute her intended attack.

The expedition as organized on leaving England in September, 1585, consisted of 29 ships and pinnaces, the largest of 600 tons and the smallest of 40 tons, 1,300 mariners and ten companies of soldiers; the whole force of about 2,300 men being commanded by Admiral and General Sir Francis Drake, with Martin Frobisher as Vice-Admiral, and Christopher Carleill as Lieut. General, commanding the soldiers. After capturing Santiago in the Cape de Verdes and San Domingo in Hispaniola, and putting them to ransom, the expedition sailed for Cartagena where it arrived February 11, 1586. The town had received notice of his impending arrival both from Seville and from San Domingo, and made preparations, although the vast fortifications now there were not built until later.

Drake himself was his own pilot, since he failed in capturing any local fishermen, and he had to rely on his experience there in his freebooting days when he took shelter in the harbor from a gale and defied the efforts of the city to drive him out.

The Spaniards had collected a force of 50 lancers, 450 harquebussiers, 100 pikemen, 20 negro musketeers and 400 Indian bowmen, over one thousand in all. There were also two galleys in port as guardships, manned by 150 harquebussiers.

Only the city itself was fortified, except that where Pastellillo now stands an outlying fort controlled the entrance to the inner harbor. This harbor is now silted up, but then a chain under the

guns of the fort prevented ingress to it. A peninsula running south from the city reached down to Boca Grande and formed the breakwater both to the inner and the outer harbor. Across the neck of this peninsula ran a stone breastwork armed with five heavy guns and defended by 300 men. The port guard ship with 11 guns and 400 small-arm men lay in the inner harbor upon the flank of any approach along the peninsula.

Drake proceeded with despatch. He ran at once through the Boca Grande and took up a position in the entrance to the Surgidero which left the Spaniards in doubt as to his intentions, and as at that day they were already *manana* people they probably showed no great activity in any direction. After dark, on the day of arrival, Carleill and his soldiers were put ashore just inside the Boca Grande and marched along on the edge of the surf, until they were near the breastwork, when they entered the surf. The causeway they used was obstructed with poisoned stakes as chevaux de frise and 500 Indians in the marsh on their flank annoyed them with arrows, but nothing checked them.

As the noise of their encounter was heard by the English ships, their pinnaces (light craft) attacked the obstructed entrance and endeavored to force their way through, but the fire of 16 guns from the fort, the narrow shoal, and the chained fairway prevented passage. Indeed this attack was merely a diversion. As the water attack developed, the troops continued to advance and coming under the flanking fire of the galleys they bore off into the surf where they were sheltered by the swell of the land. On reaching the stone breastwork with its heavy guns, about dawn it was found not to reach all the way to the sea, yet the gap was closed by a flimsy improvisation of barrels filled with earth. These were quickly torn down and for a few minutes there was a furious hand to hand encounter in which, like Homer's heroes, the leaders sought each other and crossed weapons. The Englishmen had longer pikes and they wore steel armor, while the Spaniards had adopted cotton quilted jackets on account of the climate, and soon the Spanish leaders were killed and the English entered the city gate with the fleeing Spaniards. Although the streets were trenched and barricaded, there was little further resistance. The galleys were burnt by their escaping crews, and Drake in full possession put the town to ransom.

He had apparently hoped to hold the place permanently as a base from which to disorganize the whole commerce and finance of Spain, but the yellow fever came on board months before he

sighted Cartagena, indeed, before he was half way across the ocean, and now, what with pestilence and the capture of three great cities, Drake could muster only seven hundred men fit for duty. So it was decided not to retain Cartagena.

It may be added that at each of the four fortified cities and roadsteads captured by Drake in this campaign, Santiago, San Domingo, Cartagena and St. Augustine, the plan of attack employed the army as the principal agent while the fleet took a very minor part in the actual fighting.

THE FRENCH CAPTURE OF CARTAGENA IN 1697.

Baron de Pointis, a commodore in the French navy, had long wished to conduct a privateering enterprise in the West Indies, and the King, through the Ministry of Marine, had agreed to lend ships, men and ammunition in return for a share of the profits. However, nothing could be done until 1696 when the Toulon fleet came to Brest and was there put out of commission, releasing ships and men for De Pointis. Subscriptions for stock were thereupon opened to the public, and it was being rapidly sold when peace was concluded with Savoy. The public took this to indicate that a general peace must be near at hand, and sales of stock ceased. Thus the size of the expedition had to be curtailed to suit the funds in hand, and in October, 1696, the fitting out of the squadron began.

On January 6, 1697, the expedition was ready except for a large convoy of arms and provisions shipped at Rochelle, but whose arrival was prevented by the difficulties of the blockade. Just as De Pointis was resolving to sail and pick up his stores in order to get off before peace should balk him and waste his investment, the flotilla arrived, and the following day, eluding the blockade, he was off.

At the time the expedition was resolved upon, in September, 1696, a letter was sent to Du Casse, Governor of Hayti, informing him that De Pointis was going out with 7 ships, a galliot and 2 flutes with 2,000 men as a landing force to capture some coast town, and that the King desired all the resources of the colony should be employed to aid the expedition, and that it was hoped

not less than 1,000 or 1,200 men would be ready to accompany De Pointis immediately upon his arrival.

It will be well to sketch here the characters of De Pointis and Du Casse, who took a great share in the campaign.

De Pointis had courage, experience and professional skill. He was capable of forming a great plan and adhering to it, but he was vain, with an idea of his own merits so great as to prevent his perceiving those of others. He had so great a private stake in this expedition that its advancement became a dominant passion, improperly influencing his public conduct.

Du Casse never forgot that his first duty was towards the State and put public matters befort his own affairs. He was always ready to acknowledge the good work of others. No misfortune ever found him without resources. His failures gave him reputation as well as his successes.

In January, 1697, Du Casse was ordered to assemble and maintain all the filibusters of the colony until February 15, when De Pointis was expected. It was a difficult task that was set him, as the filibusters were restive under enforced idleness, and De Pointis did not arrive on time. Much diplomacy was shown by Du Casse in holding the filibusters together.

De Pointis arrived at Cape Haitien on March 1 and found that certain regular forces he relied on had gone back to France. On March 16, De Pointis and Du Casse met for the first time and began their quarrels, which lasted through the expedition. De Pointis was angry that only 1,200 filibusters and colonists had been assembled, and accused the governor of seeking to delay the expedition, declining to accept the explanation that the colony could not be stripped of men. Thus the expedition was only about half as strong as had been planned before leaving France.

Du Casse, as the Governor of the Colony, felt obliged to protect the interests of his filibusters, and there was much haggling over the terms for sharing the booty. De Pointis soon offended the filibusters, and Du Casse thought that only by going in command of them himself could he assure their good service. He wrote to the Ministry that as his orders did not forbid him to leave the colony, he felt obliged to go, however distasteful to himself, as otherwise the colonial forces would be unmanageable by De Pointis, and the best defense of the colony would be by making the expedition as great a success as possible. In fact, De Pointis soon perceived that Du Casse's services were essential; for when a riot occured among the filibusters which De Pointis

could not quiet, it yielded immediately to Du Casse. Nevertheless, although Du Casse was the Governor of the Colony and the senior naval officer, excepting De Pointis, and joined a great reputation to exceptional experience in the West Indies, yet De Pointis refused him any adequate command in the fleet, and he went as a volunteer in charge of the colonial forces.

The expedition finally anchored off Cape Tiburon to select a point of attack. Du Casse preferred Porto Bello, as the Spanish treasure ships were likely to be there or on their way to Cartagena, but De Pointis preferred Cartagena for reasons connected with the trade winds and the amount of provisions on board.

At last they sailed, and anchored 15 leagues to windward of Cartagena on April 6, 1697. Contrary winds detained them here a week, and the time was spent in perfecting the organization.

In the home squadron there were seven large ships carrying 464 guns and 2,950 men, besides frigates carrying 136 guns and 800 men and a couple of light craft. The filibuster squadron commanded by Du Casse included 8 ships of moderate size, besides some smaller ones. Du Casse provided 170 soldiers from the garrison of Hayti, 110 colonists, 180 negroes and about 650 filibusters. Thus there were in all about 4,000 men, including 110 officers, 2,100 seamen, 1,950 soldiers and 55 marine infantry. The troops were organized in 6 battalions, and a battalion of 400 blue jackets made a seventh. This was a great reduction upon the original plans which provided 5,000 men for landing. De Pointis had originally contemplated landing on the open beach to windward and getting in rear of the city, but with his reduced force this was impossible without stripping the ships of seamen, which could not be thought of in view of the weather at this season, and of the information that the English fleet was aware of their presence in the Carribean.

At this time the Boca Grande was completely closed by a great earthquake, and De Pointis next thought was to force the Boca Chica and afterwards capture the fort there. Then, by bringing the fleet inside, he could hold the entrance fort and so put his ships in security against wind and enemy, thereby releasing a large reenforcement of seamen for the land attack on the city.

This plan was rejected because the narrow, winding channel required warping to enter, and two ships opposing the entrance in addition to the fort could effectually prevent forcible entrance.

It therefore seemed best to land on Tierra Bomba from the sea, and by promptly landing the siege batteries with which the fleet

was well equipped, and establishing them on the harbor side, any hostile ships would be driven back while the mortar fire would bring the fort at Boca Chica to terms.

After entering the harbor in this way, in case the galleons should not be found, after securing he ships it might be possible to capture Cartagena by landing the seamen to reenforce the troops.

The notes, information and instructions furnished to De Pointis from the Ministry covered several localities. In regard to Cartagena, they were much in error, and De Pointis refused to listen to Du Casse who had the best information from spies. Nevertheless the Paris notes were right in describing the convent and hill of La Popa as commanding all the land approaches to the city. By his instructions from Paris, De Pointis was required to seize this hill as his first operation, and he determined to commit the enterprise to Du Casse and his buccaneers before attempting to enter the harbor. They were to land N. E. of the city.

The fleet arrived off Cartagena on April 13, and that very night the filibusters expected to land. While preparations were being made, De Pointis, Du Casse and others embarked in a small boat to reconnoitre the beach, and were nearly drowned in the surf. The landing was countermanded.

On the 14th the fleet weighed anchor, intending to bombard the city in passing, but it was found that the knowledge of the locality was so imperfect that the day was spent in surveying. A distant cannonade of the city developed the presence of many heavy guns. Late on the 14th the fleet anchored near Boca Chica and sent a detachment to blockade it. On the 15th, reconnaissance was made to select a landing, and at noon Du Casse landed with 80 negroes, and, finding no ambush, De Pointis landed 1,000 men, grenadiers, filibusters and negroes. The negro pioneers cut a path across to the lake side about half cannon shot from the fort, on which pickets were placed at each path leading to the city. The troops occupied a strong position hidden in the woods about two gun shots (800 yards from the Boca Chica fort. During the landing, the distant fire of the ships of the line and mortar boats occupied the enemy's attention. The fort's return fire was slow and did little harm. At dark several of the principal officers passed around the fort and observed it closely. During the night and on the morning of the 16th, siege material was landed and trenches opened on the sea side of the fort where the wood approached it most nearly.

On the 16th De Pointis sent to demand the surrender of the fort by the mouth of a monk he had just captured in a small boat. This was refused, whereupon the mortars opened fire, both ashore and afloat. This day two pirogues containing a reenforcement of 300 men were sent down from the city. On arriving near the fort, the filibusters in ambush along the lake shore left their shelter and ran to the shore to fire on the boats, but thus exposed themselves to the fire of the fort as they ran along the beach. The Spanish boats went back while Du Casse endeavored to get his men under shelter. Some retreated, but others instead rushed to the fort and established themselves at the foot of the counterscarp, which was so badly designed as to give no protection against the fire from the rampart. De Pointis came to remonstrate with Du Casse, but was induced to support the filibusters with regular troops. The fire of the fort was silenced. Scaling ladders were brought up and assailing columns formed, and then a parley flag was shown by the fort. Good terms were allowed, and the governor handed the keys to De Pointis with the remark: "I deliver you the keys of all the Spanish Indies." The French lost 50 men, while the garrison of 300 lost 90 men. Thus the entrance was open after two days' work.

The fort was garrisoned by the French in order to protect their shipping during the attack on the city.

On the folowing day, the 17th, the siege material was re-embarked, and the fleet moved close to the entrance, but in spite of De Pointis' anxiety to surround the town before its riches could be sent inland, he was afraid to lose touch with the troops on shore and did not permit the regulars who had been landed to abandon their position at Boca Chica until all the shipping was inside. Buccaneers, over 600 in number, however, were pushed across the lake on this date, apparently in local craft, with orders to seize La Popa and cut off the city. After a march of 4 leagues, through the forest, where two ambushes were encountered, La Popa was reached and found abandoned. The filibusters advanced close to St. Lazar on the morning of the 18th and halted there without attcaking, to wait the arrival of the regulars.

On seeing the filibusters across the lake, the Spaniards burnt three galleons and a pirogue, which sunk, so as to close the entrance to the harbor at Fort Santa Cruz.

On the morning of the 18th the fleet began to warp in, and De Pointis, now sure that he would not be cut off from his ships, started his soldiers to march on the city. He had with him 1,700

soldiers, 180 negroes and a few seamen and 110 Haytien colonists. Fort Sainte Croix (or Santa Cruz) was bombarded by the shipping in the morning, and when the troops from Boca Chica arrived about noon it was found abandoned with its guns removed, as the Spanish Governor feared to have the garrison cut off from the town.

De Pointis then reconnoitered the approach to the city by way of which Drake had gone, but found the tremendous bastion of San Domingo opposed to him forbidding assault, and although he summoned the governor to surrender, he recognized that the ground was too near the sea level to carry out regular siege operations. Early on the morning of the 19th the troops were ferried across the lake, the negroes reconnoitering, and De Pointis joined the filibusters under St. Lazar in time to reconnoiter that post before dark, and to discover that it was so strong as to stop all attempt upon the city until after it should be captured.

In the morning of the 20th a further examination showed that St. Lazar was commanded by the spur sloping down from La Popa, and that troops could advance in the wood along this spur close to the fort and then mine it. The negro pioneers were thereupon called to cut a path which, in the neighborhood of the fort, was forked to lead on both sides of it. The troops followed and opened fire, while the scaling ladders were sent for; the garrison made no effective return fire, and soon abandoned the fort, fearing to be cut off.

The French then advanced to the bridge and causeway leading to the suburb of Himani where they were sheltered from view by the Hospital of St. Lazar, whose high walls with some trees gave concealment. The ships got up this day and opened fire with a mortar boat and galliot, but they were obliged to withdraw.

Everyone was put at work, the soldiers made fascines and gabions, the seamen landed the artillery and the negroes dragged the pieces, while the filibusters reconnoitered and ravaged the country and secured intelligence.

As the ships employed in the bombardment needed full crews, there were not many sailors available for disembarking stores, but in six days there were landed and moved half a league into position, 27 guns, six of which were the largest cannon of the day, 36 pdrs. and 24 pdrs. and 5 mortars, besides all their supplies. Of these guns 5 were at the foot of St. Lazar, 7 in that fort and 9 on the hill to the right of the fort. The 6 heavy guns were only 120 yards from the gate. On the 28th the siege batteries began

to play on the wall, while the ship "Vermandois" and the mortar boat had begun fire even earlier. Upon the 29th, three large ships added their fire to that of the siege batteries, but could not reach the same bastion as that on which the latter were working.

On the 30th a curious incident brought a great success to the French. A negro, native to Cartegena, but coming from Hayti with the French forces thought proper to advance to the breach with a flag of truce. Fire ceased and the negro was asked his errand. He said he wanted news of his relatives and of the town, and also took the opportunity to advise the town to surrender. Du Casse ran up to see what was happening and met the Spanish senior officer similarly attracted, and after conversation the Spaniard asked for an armistice of two hours to confer with the Governor. This was declined by Du Casse, who had seized the chance of examining the breach and thought it practicable. He sent word to De Pointis advising immediate assault, and at 4 p. m. the regulars advanced, followed by the filibusters. But the regulars moved circuitously to avoid obstacles, while the filibusters pushed straight on and arrived first at the beach. Du Casse planted the French flag on the rampart. The Spanish resisted at first, but soon the regulars got forward to support the filibusters and drove the Spaniards through the suburb upon the causeway leading into Cartagena. The Governor refused, however, to open the gate until the fugitives should have attacked the French, so, urged, as De Pointis says, by necessity and the liquor they had drank, they made a little counter attack, which drove back the French, who, however, soon rallied and killed all they could without quarter, but this time the Governor admitted the fugitives through a little postern gate.

On May 1st, the siege batteries were moved into position on the ramparts of Himani, after the bridge had been repaired that it might bear the siege guns, and on the 2nd the fleet opened fire. After three hours' bombardment the governor asked for terms, which De Pointis refused. At this instant news was brought of the approach of two relieving forces of 1,000 or 1,200 men each from the interior who proposed to get into Cartagena by the Sta. Catalina bastion. Du Casse went out to oppose them with his filibusters, but it turned out that hearing Himani had fallen they did not advance. Still, the news made De Pointis more ready to treat, and on the 3rd a capitulation was signed by which the garrison marched out with the honors of war, while all public treasure and private personal property was to be surrendered as prize.

The Spaniards never once made a sally.

The English Attack on Cartagena in 1741.

Vice-Admiral Edward Vernon was the British Commander-in-Chief in the West Indies in 1740-41. In the fall of 1740 he learned that a large expedition was to be sent to the West Indies from England and the North American colonies, but unnecessary delays in starting caused it to arrive later than was desirable in view of the season of the year. Vernon sailed from Jamaica to meet it in October, 1740, but instead he met only the colonial troops, and the news that a Spanish squadron had arrived at Cartagena and a French one at Hayti, each superior to him. France was not known to be at war with England, but there was every reason to fear the instructions which the French squadron brought with it, so Vernon retired to Jamaica.

Rear-Admiral Sir Chaloner Ogle, with a powerful fleet of battleships conveying the transport fleet with the troops, under the command of General Lord Cathcart, arrived at Dominica on the 19th of December, 1740, where Lord Cathcart died. He was considered a man of great ability and one with whom Admiral Vernon would cordially co-operate. His successor, General Wentworth, was a man of much less ability and far from enterprising, although apparently well disposed. On the other hand, Vernon was a man of ability with a great reputation, yet hot-tempered, overbearing and contemptuous towards his associates. His friends in England had thought wise to warn him against these failings.

On January 7, 1741, Sir Chaloner's fleet arrived at Jamaica. This arrival changed the situation at Jamaica so as to open possibilities of offensive operations.

The orders of the ministry sent out with the troops placed the control of the campaign entirely in the hands of a council to consist of the two senior officers of the Army and Navy to whom should be joined the Governor of Jamaica when his presence could be obtained. It was necessary first to gain some intelligence of the movements of the French and Spanish fleets. Accordingly a scout vessel was sent to windward to examine Hayti, and the whole fleet followed, transports and all. On arrival off Port Louis on February 12th it was found the French fleet was absent. As war was not yet declared, the fleet watered there and learnt the French fleet had sailed for home, so that all was clear for operations against the Spaniards. Another council was called to select an objective for the campaign. Public opinion at home wished to

seize Havana and conquer Cuba, but the council decided for an attempt on Cartagena, and on February 25th it sailed for that place. The force counted 124 sail in all, of which the combatant ships were 29 battleships, 12 frigates, 7 fire ships and 2 bomb ketches, manned by 15,400 blue-jackets. The transport fleet carried 12,000 troops, including 2 regiments of foot troops, and 6 regiment of marines, amounting to 8,000 men, artillery and detachments, 1,000, the American regiment 2,500, and 500 negroes.

The garrison of Cartagena consisted of 4,000 men, besides which there was a squadron present of 6 heavy ships, besides galleons and small craft. On March 4th the entire fleet anchored to windward of Cartagena and the small craft were sent inshore to draw the Spaniards towards them by feinting at landing.

This feint was successful, and during it a number of ships were sent to sound along the coast and reconnoitre the shore. From their report it was arranged that Sir C. Ogle with his division should drop down to the harbor mouth.

The following is a contemporary description of the place and its defenses at this time, there having been changes since the French attack:

"The town is directly on the sea, but the water begins to shoal a league off and the surf and rocks prevent landing. The only entrance into the harbor is more than two leagues from the city between two narrow peninsulas. This, called Boca Chica, was defended on the Tierra Bomba side by a castle called St. Louis, which was a regular square with four bastions, strong, well built, mounted with 82 guns and three mortars, and was capable of making a stout defense if well garrisoned, and would have been much stronger if the glacis and counterscarp had been finished. To this were added the forts of St. Philip, mounted with 7 guns, Fort San Jago, mounting 15 guns, and a small fort of four guns called Battery de Chamba, which served as outworks to Fort St. Louis towards the sea.

"On the other side of the mouth of the harbor was a fascine battery of 15 guns, called the Baradera, and in a small bay at the back of that another battery of 4 guns, and facing the entrance of the harbor on a small flat island stood Fort St. Joseph of 21 guns; from this fort to Boca Chica Castle a boom and cables were fixed across, fastened with three large anchors at each end, and just within the boom four men-of-war were moored in a line, the "Galicia," on board which was the Spanish admiral, and three others of 70 and 66 guns each. These spread so far across the mouth of

the harbor that there was not room for a ship to pass ahead or astern of them, so that it was impossible for shipping to force an entrance to the harbor. Beyond this pasage lies the great lake or harbor of Cartagena. Within a league of the city two points of land jutting out form the lesser harbor. On the northernmost of these is the strong fortress of Castillo Grande, about 8 miles up the harbor, being a regular square with 4 bastions, strong and well built, and defended to the land by a wet ditch and glacis proper, and one face towards the sea with a raveline and double line of guns, and though there were but 59 guns in the fort, there was room to mount 61. Opposite to this castle was a horseshoe battery of 12 guns, called Mancinilla. In the middle between these two forts is a large shoal with not more than two or three feet of water in it, and in the passage on either side ships were sunk across to prevent the fleet getting by. Two miles further up on two flat, sandy islands or keys stands the city of Cartagena, directly on the sea, with Himani, its suburbs, back of it (east). Both are irregular figures, but well fortified to the and with strong bastions at proper distances with lakes and morasses running around them. The city was defended with 160 guns and the suburb with 140, and the water shoals on the sea side so as not to permit a close approach. East of the city about a quarter of a mile from the gate of Himani on an eminence about 50 or 60 feet high stands the castle of St. Lazar, which is a square of 50 feet with three demi-bastions with two guns in each face, one in each flank and three in each curtain. Its situation is very advantageous, overlooking all the town, though there is a brow of a hill about 400 yards from it that overlooks the fort as much, and entirely commands it."

The reconnoitering ship advised landing at the same point as De Pointis had done, and on the 6th Sir C. Ogle laid three ships of 80 guns each before St. Jago and St. Philip. Another 80 gun ship was placed against the fascine battery which proved to have no guns mounted, and a 50 gun ship against Chamba. Thus the guns opposed to each other were 6 to 1 in favor of the ships.

The Admiral, Vernon, with his division, escorted the transports, leaving the 3rd division to continue the feint on the other side of the city.

After an hour's bombardment, the forts were shattered and abandoned, and 500 grenadiers took possession of them, without any resistance. It was not possible to land more troops that night as they could not be brought from the upper side of the city

owing to the wind. Two of the three ships off St. Philip and St. Jago suffered trifling losses, but the Shrewsbury had her cable cut by a Spanish shot and drifted before the trade wind into the concentrated fire of the main defenses at the harbor mouth besides that of the 4 ships inside the boom. After 7 hours firing, opposing 26 guns to 200, the Shrewsbury drew off at nightfall dismasted, with 240 shots in her hull. This does not seem good work on the part of the Spanish.

This same evening the bomb ketches were carried in to begin the bombardment of St. Louis. On the 12th the Ludlow Castle opened mortar fire on St. Louis on the 13th the bomb battery on shore opened.

The army landed on the 10th, and till the 15th was occupied in landing tents, artillery stores and provisions, so that during the first three days the troops were much exposed to the weather and fell sick. The camp was on low land, so placed as to be unseen by the Baradera battery, yet in the line of Spanish fire from it upon the English bomb battery.

The Chief Engineer did not push his work as fast as the Admiral though possible, and thereupon a coolness sprang up between the two commanders-in-chief which spread among their subordinates until its effects on the campaign became very regrettable.

The Baradera battery continued to annoy the camp, and it was resolved to destroy it, attacking at midnight with 300 blue-jackets and 200 soldiers. Bad weather delayed the expedition till the 19th at midnight, when it set out. It may be noted that one of the two companies of soldiers was commanded by Captain Lawrence Washington, who afterwards named his estate in Virginia as Mount Vernon, in honor of the naval commander of this expedition. After pulling to leeward to avoid being heard, the boats landed about a mile below the battery, and found themselves immediately beneath a 5-gun battery, hitherto unknown to them. After an instant's hesitation the officers carried the men forward and they pushed through the embrasures with very little loss. The Spaniards turned some of their guns in the main battery, loaded with grape, on the charging Englishmen, but firing high, the defense was ineffective. The guns were spiked, the battery set on fire, and all returned to their ships. The accounts record that "The Admiral was so pleased with this affair that he rewarded the common men with a dollar apiece."

The destruction of this battery gave great relief to the camp

and enabled work to be carried on in more security upon the main battery in the wood. Although the engineers had 500 seamen and 250 negroes besides their own men, yet they failed to hurry matters in accordance with the expectations of the Admiral who was very anxious to get his ships inside the harbor, as the weather was very tempestuous and the stony bottom of the anchorage cut the ships' anchor cables. Besides which, a French fleet was said to have arrived in the West Indies.

On the 20th, Fort St. Louis began firing against the bomb battery. On the 21st the battery destroyed at Barbadera had two or three guns in service once more greatly annoying the bomb battery and camp. The Ripon was detailed to anchor near and keep it quiet.

The Admiral now called a council, which resolved to make a brisk attack on the defenses. On the morning of the 21st, the main battery of 19 guns and the mortar battery of 30 pieces opened, to which the Spanish replied very generally. On the 23rd, Commodore Lestock, with 6 ships, closed with the fort, and was supported by Sir C. Ogle, who was to come in to replace injured ships or extend the line if there was room for him. The Boyne failed to get her designed anchorage and suffered much, and left at night fall, after which the Prince Frederick and Hampton Court, which had done good service all day, caught the fire previously directed against the Boyne. Before morning it was necessary to order them away also. The other three ships were less exposed, but were called off at night fall. The distance was too great for the ships' fire to be effective, but they drew part of the Spanish fire from the siege works.

The Baradera battery still annoyed the camp, and on the 24th three ships were sent against it, while a detachment of sailors was landed and destroyed it again, after which they drew their boats overland and boarded and burnt a sloop that lay in the bight as a magazine for the battery.

By the 24th many guns had been dismounted in St. Louis and a breach well opened. The general therefore wished to assault on the 25th, and after consultation with the Admiral it was arranged that the latter should attempt a diversion. The Admiral sent a party of blue-jackets who landed unopposed on the site of the ruined Baradera battery, drawing the attention of the Spaniards. At 5.30 p. m. the storming party advanced against St. Louis, covered by the smoke of the great battery's fire. The attack was successful and the fort was taken with the loss of one

man. The whole assaulting force, including the reserve of 500 men, was only 1,300 strong. Captain Knowles, in command of the blue-jackets at Baradera, observing that the Spaniards were in great confusion, owing to the loss of St. Louis, threw his men into their boats and boarded Fort St. Joseph. The Spaniards attempted to sink their ships having previously prepared them, but Captain Knowles pushed on so quickly from St. Joseph that he captured the Galicia flagship before she could be sunk.

It now remained only to destroy the boom in order to be able to enter the harbor. This was soon done by the boats and carpenters of the fleet.

The Army had lost 500 men by death from the climate and battle, and had besides about 1,500 sick in the hospital ships. The Navy suffered less as not having been on shore. It seems beyond a doubt that it was a great sanitary mistake to land so many men to live in idleness while a few carried on the work against the fort. On the 26th the Galicia was towed out of the channel and several heavy ships managed to warp past the sunken and burning Spanish ships. On the 27th two ships got as high as Castillo Grande, while a detachment to Pasa Caballos cut off suppies to the city by that route. By Pasa Caballos was the water route to the Magdalena River by way of the canal, and this was the principal commercial highway. A good spring of fresh water was found which the Admiral took possession of for the use of the fleet only. The lack of good water was largely responsible for the sickness in the army. The Admiral also refused to supply the army with fresh fish and turtle which were caught for the navy only. In short, the public service was sacrificed to the coolness between the two commanders-in-chief, which was imitated by the principal officers of both services.

The greater part of the forces was inside on the 30th of March, but Commodore Lestock remained with his division to complete the embarkation of the cannon and stores used before St. Louis.

As the English advanced up the harbor, the Spaniards blocked both channels abreast of Castillo Grande by sinking ships, while just inside they anchored their two remaining ships of the line so as to support either Castillo Grande or Mancinilla.

A naval council of war on the 30th decided that haste was desirable and that the remaining outer defenses of the city should be destroyed in order to land the army as near to the city as possible. As the ships moved to the attack, the Spaniards blew up

Mancinilla, as they thought it untenable, sank the two battleships and abandoned Castillo Grande.

This was discovered on the morning of the 31st when the Castle was manned by the Navy and an effort made to remove the masts of the sunken ships so as to clear a passage, but the working party found the stern of the "Conquestador" afloat and hove her round clear of the channel. By evening two bomb-ketches with two covering frigates had passed in, and on the morning of April 1st they opened fire. In the meantime the troop transports had come up.

On the 3rd and 4th some of the battleships worked through the obstructed channels into the Surgidero and arranged themselves so that the troops might land behind them. A fire of grape shot from these ships lasting all night drove the Spaniards from Pastellillo and cleared all the country side for the landing of the troops of the 5th. It is to be remarked how much the abandonment of Castillo Grande facilitated the work of the English army, as otherwise it would have been landed further from the city.

On the 5th of April at daylight 1,500 troops were put ashore at Texar de Gracias (or Gratia), and marched through a narrow way between the shore and the tropical woods. They were opposed by 700 Spaniards, but the English drove them back and seized La Quinta (a country place) as a camp. La Popa was found unoccupied and was seized. On the 6th all the troops were landed, but for three days they were exposed to the weather without tents. General Wentworth reconnoitered St. Lazar and the city, and on his return a military council was held as to the propriety of attacking St. Lazar before some new Spanish works should be finished on the hill adjoining it. As no stores had yet been landed from the ordnance ships, no attack was made. In the meantime the Spaniards completed a four-gun battery, and entrenched themselves in lines thrown up around the Castle (St. Lazar) itself. The guns of a fascine battery on the north point were also mounted in this new battery.

On the 7th another military council again decided not to assault St. Lazar without having first raised a battery, and requested the navy to send the bomb ketches (mortar vessels) and a ship of the line against the fort to facilitate its reduction. Admiral Vernon replied expressing his disapprobation of waiting to raise a battery, sickness was increasing, the rainy season was approaching, the Spaniards would not stand an assault, but their engineers were better than the British, wherefore Vernon and Ogle urged im-

mediate assault, and sent ashore the marines belonging to the ships' complements, besides some American troops, bringing General Wentworth's force up to 5000 men.

Supplies and provisions continued to pass into the city from the north along the sea beach, and this was a subject of dispute between the commanders-in-chief. The general could not send a detachment there, as he was without boats for supplying them, and the admiral promised, but did not send, frigates to lie off the strip of beach and control the passage.

On the 8th the military council again assembled and the engineer reported that in the circumstances of the army no time was available to carry on siege operations, and that an assault must be made or the army should withdraw. The troops were paraded for an assault in two columns at 2 a. m., April 9, but in the darkness one column lost its way and assailed the most difficult part of St. Lazar, the other column lost its commanding officer and the guide, and stopped in consequence. Spanish reenforcements poured out from the city, but no ships were placed where they could command the bridge head behind St. Lazar, so that the result to the English was only a loss of 650 men. On April 11th two mortars began to fire from the advanced guard, and on April 14th two ten-inch mortars, landed and manned by the navy, opened fire from Manga Island. On the 11th another military council had decided that without a large reenforcement from the fleet nothing could be done. Sickness continued to increase while the water supply in the cisterns began to fail. The admiral treated the military council with rudeness, and a general council was held on the flagship on the 14th. The admiral showed great heat and passion towards General Wentworth, and the navy would not consent to land the sailors of the fleet, as Admiral Ogle said they could not be kept in hand, so it was resolved to reembark. The soldiers were now reduced to about 3,500 men, many of these very feeble.

On the 15th the stores were embarked, followed by the troops on the 16th, but this day was selected by Admiral Vernon for an attack on the city by the "Galicia" prize armed with 16 12-pdr. and 18-pdr. guns. She did not get close to the city, and after 7 hours was reduced to a wreck. She hauled off and got on a shoal to avoid sinking.

From this date, for over two weeks the blue-jackets were occupied in destroying all forts, batteries, lime-kilns, etc., that had been captured. On the 6th of May, as an old historian puts it, "Vice Admiral Vernon very civilly left the harbor, not having injured

any of their dwelling houses or given the least loose to any of those rapacious practices of war so often committed." On the 8th the expedition sailed for Jamaica.

In reviewing this unsuccessful expedition the following points may be noted with advantage:

1st. More troops than were needed were landed at Boca Chica, causing sickness to be general when the final operations before the city were undertaken.

2nd. The general commanding failed to recognize that the climatic conditions were such that he could not save the lives of his troops by delaying for siege operations. The most bloody assault would cost fewer lives than a fortnight in trenches. This was clearly perceived by the admiral and his insistence upon the point caused bitter ill feeling between the military and naval officers of high rank.

3rd. The general did not push the Spaniards in haste, as is the proper way to deal with Spaniards. If he and his brigadier had been enterprising, Lazar could possibly have been taken on the day of landing. Similarly, an error was made in landing all the troops before landing any stores, whereby the whole body of troops was exposed to the weather for several days.

4th. The admiral got into the lake on the 26th of March, but did not attempt any operation till everybody was in on the 30th. It is probable that the troops could have landed two or three days earlier if arrangements had been made to attack Castillo Grande with the first ships of the line to pass inside.

5th. The main cause of failure was the utter lack of cooperation between the army and navy after getting into the lake. The admiral thought, probably with reason, that the general was not doing as well as was possible, and thereupon failed to cooperate with him, threw obstacles in his way and treated him with such rudeness that success was impossible.

In comparing these three attacks on Cartagena we shall perceive several particulars in which the operations were alike, and we may fix certain points in regard to tactics at that period, and later we shall see how time and progress have affected these matters.

In regard to the defense, we see that in each case fortified artillery positions to destroy the lives of the attacking forces are combined with channel obstructions to stop the advance of the ships (in the French attack the natural difficulties of the channel were thought sufficient to prevent passage under fire).

In regard to the attack:

In each case the main attack was made by a body of soldiers attacking the shore defenses of the place by the ordinary military methods of the time, and the navy supported the land attack without greatly risking its ships under the fire of the forts.

In each successful attack, there was a single commander-in-chief in charge of all the forces and their operations. In the unsuccessful attack there were separate commanders-in-chief for the army and navy, and to the lack of harmony between these officers the failure was directly due. It is therefore proper to examine how this divergence of views arose and what lessons may be drawn from it. The first difficulty arose before Boca Chica when the admiral told the general in a very disagreeable manner that the engineers were not pushing their siege works as fast as they should and that an early assault was necessary. The general resented this reflection, and cordiality and cooperation between the army and navy were lacking more and more as the operations were prolonged. The general was unable to see that under the unjustifiable form of a rude and contemptuous criticism upon the engineers the admiral was really making a report upon the condition of affairs as affecting his own ability to support the besieging army. The general looked upon the arrival of the French fleet and the approach of the bad weather season as difficulties which should trouble his colleague only, and refused to admit that they concerned him as seriously, if not as directly, as they did the admiral, and that they were the factors which gave the admiral the right to urge the early assault. Of course, after the two commanders had lost their temper and refused to aid each other, success could not be hoped for. But in the beginning both had been desirous of the success of the national arms, and if they had hac a good understanding of each other's situation the operation would have had every chance of success. Unfortunately, the general's lack of acqaintance with the science of war caused him to be unequal to the practice of its art so soon as he found himself confronted by a situation beyond the limits of his previous personal experience.

For the United States army and navy, it is only reasonable to believe that a study of previous campaigns and a general knowledge of each other's situation and requirements will enable our commanders-in-chief, in joint operations, to perceive in each case which should take the lead, and which should follow suit, and so to play a united and successful game.

ATTACK UPON THE FRENCH FLEET IN BASQUE ROADS IN APRIL, 1809.

To illustrate the turning of a fortified position, regarded by Napoleon as impregnable.

Late in February, 1809, the French fleet at Brest eluded the British blockading fleet, with the intention of operating against the British colonies in the West Indies after uniting with several small detachments. The French squadron went to L'Orient and picked up the ships blockaded there, and then made for Isle d'Aix to liberate the Rochefort squadron. They made a junction with the latter, but finding Admiral Stopford in the vicinity with 4 ships of the line, the French fleet put into Basque Roads and later withdrew into Aix Roads where Stopford blockaded them with 7 ships. On March 7th Lord Gambier, commander-in-chief, with 5 ships of the line, joined Admiral Stopford, so that the British force was now superior.

In this state of affairs the British Ministry was very anxious to gain some advantage over the French fleet, but Lord Gambier did not care to attack. He wrote home that the fortifications on Aix were no obstacles to bombarding the enemy's fleet if the Admiralty wished to destroy it. He further said: "The enemy's ships lie much exposed to the operation of fire-ships; it is a horrible mode of warfare, and the attack hazardous if not desperate, but we have plenty of volunteers for the service. If you mean to do anything of the kind it should be done with secrecy and quickly."

Hereupon the First Lord of the Admiralty sent for Captain Lord Cochrane and showed him the Commander-in-Chief's letter, saying that the Ministry was unwilling to order an attack by fire-ships. In other words, the Ministry wanted a victory, but required a scapegoat in case of defeat, and invited Lord Cochrane to submit a plan.

Lord Cochrane thereupon submitted a plan which the First Lord approved, and asked him to carry out. Cochrane declined to do this on the ground that being a very junior officer and an outsider, it would excite much jealousy in the fleet, and moreover, Lord Gambier ought not be satisfied to put another's plan in execution. The First Lord then endeavored to find some one else to execute Lord Cochrane's plan, but the next day told Cochrane that he should go to Basque Roads and that "the Board of Admiralty would so manage with Lord Gambier that the *amour propre* of the fleet should be satisfied."

On March 19th the Admiralty notified Lord Gambier that it was sending out 12 fire-ships besides rockets and a detachment of marine artillery, and suggested that the admiral attack the French fleet, offering him all reenforcements and facilities he might wish.

On March 26th Gambier replied describing the position of the French fleet:

"The enemy's ships are anchored in two lines very near each other in a direction due south from the Isle d'Aix and the ships in each line not further apart than their own length, by which it appears, as I imagined, that the space for their anchorage is so confined by the shortness of the water as not to admit of ships to run in and anchor clear of each other. The most distant ships of their two lines are within point-blank shot of the works on the Isle d'Aix; such ships therefore as might attack the enemy would be exposed to be raked by red-hot shot, etc., from the island, and should the ships be disabled in their masts, they must remain within range of the enemy's fire until they are destroyed—there not being sufficient depth of water to allow them to move to the southward out of distance. The enemy having taken up their position apparently with the view not only to be protected by the strong works on the Isle d'Aix, but also to have the entrance to the Charente open to them, that in case of being attacked by fire-ships and other engines of the kind, they can run up the river beyond the reach of them. The tide and wind that are favorable to convey this kind of annoyance to the enemy serve equally to carry them up the river."

The letter concluded with the information that the Commander-in-Chief was ready to execute any plan of attack that the Admiralty might direct.

It is to be noted that the admiral had changed his opinion as to the obstacles offered by the Aix defences.

Upon the arrival of Lord Cochrane on April 3rd with orders to Lord Gambier to permit him to carry out his plan, the ill-feeling in the fleet became very great and Admiral Harvey used such language in public to and of the Commander-in-Chief that he was afterwards court-martialed and dismissed from the navy, but was immediately restored in consideration of his previous good record.

However, Lord Cochrane urged the Commander-in-Chief not to wait for the fire-ships from home to fit out others in the fleet. Three explosion-vessels were also fitted out, this being a novelty introduced by Lord Cochrane. These ships contained 1,500 barrels of powder covered over with several hunderd shells and three thousand hand grenades.

On April 10th the fire-ships from England arrived so that there were available 20 fire-ships, and three explosion-vessels. The situation occupied by the French may now be described.

The Ile de Re and the Ile d'Oleron form between them a deep arm of the sea whose entrance is about 7 miles across. At the bottom of the bay is the entrance to the Charente river, on which, several miles from its mouth, is the city and naval arsenal of Rochefort. The Ile d'Aix, off the entrance to the river, affords a site for an outwork to defend the river entrance and at the same time protects the anchorage of Aix Roads. Ile Madame is on the other side of the entrance to the river, 2 miles from Ile d'Aix. The tide runs strongly and rises at springs to a height of 21 feet.

The English fleet was anchored within the shelter of the islands in Basque Roads, but at a respectful distance from the fortifications, while the French fleet had taken a position as far to the front as it dared, in order to lose no time in warping out of the river should bad weather drive away the blockading force. This position was taken by the personal order of the Emperor Napoleon, whose opinion as to the locality had been expressed four years previously to the Minister of Marine as follows:

"You may quiet your apprehensions that the enemy will attempt something against Ile d'Aix. Nothing can be more insane than the idea of attacking a French squadron at Ile d'Aix. I am annoyed to see you with such notions. What on earth do you imagine is to be feared by a squadron of 5 ships of the line, with plenty of powder and supplies, well protected, and ready to fight lying at Aix?"

The French fleet moored in three lines with their heads northerly, the lines resting on Ile d'Aix and running south therefrom. The lines extended far enough to rest on the Palles Shoal.

In the two inner lines were the battleships and one frigate, 6 ships in each line, and the third line had 3 frigates about 750 yards in front of the battleships. About one-half cable's length in front of the frigates was a floating boom of very unusual size and strength about 1,600 yards long. Ile d'Aix had several batteries whose strength is not exactly known. It is probable that not more than 30 guns covered the French Fleet, but they were 36-pounders (large guns then) and there were several mortars of the largest size. The N. E. side of the island had only a few guns and those in poor condition. The garrison consisted of 2,000 recruits.

On the Ile d'Oleron were three or four gun and mortar batteries, one of which could almost interset its fire with with Aix batteries. The Boyart shoal reduced the area available for ma-

neuvering ships. The batteries on the Isle Madame, at Fouras and elsewhere, did not come into action.

The arrival of the English fire-ships was a warning to the French fleet that an attack was to be expected. The French admiral therefore issued a general order covering the preparations for defense. The battleships sent down their light yards and unbent all unnecessary sails so as to have as little inflammable material aloft as possible. The ships' soldiers were also to be ready to land on Ile d'Aix in case the English should try to take possession. Moreover, the boats of the fleet, 73 in number, in 5 divisions, were ordered to assemble at the boom each night to board and tow away the fire-ships and engage any British boats supporting them.

On the afternoon of the 11th of April the English fleet began to take up positions for the attack. The line of battle remained at anchor about 8 or 9 miles from Ile d'Aix and the attacking force moved up. It consisted of the 20 fire-ships, 3 explosion-vessels and a supporting division of 4 frigates all under the command of Captain Lord Cochrane.

The frigates anchored near the head of the Boyart shoal a gun shot and a half (about a mile and a half, or three-quarters) from the French. Here they were to wait to receive the escaping crews of the fire-ships.

The Etna carrying a 13-inch mortar, the only bomb vessel which had arrived, took station N. W. of Ile d'Aix and was covered by two light craft. Five gunboats were stationed to make a diversion at the east end of Ile d'Aix and two brigs with lights screened from the enemy were stationed as markets to guide the attacking vessels. At 8.30 p. m., the fire-ships got underway with a strong flood tide and a N. W. gale. Many of them were fired and abandoned too soon, before they had even passed between the mark boats. The boats of the fleet had been ordered to assemble alongside the Caesar ready to support the fire-ships, but the weather was so bad that they did not leave her. For the same reason the French boats could not get at the boom.

Lord Cochrane personally conducted an explosion-vessel which blew up against the boom about 100 yards from the frigate L'Indienne and soon after a second one did the same, and several fire-ships then pushed on to the French anchorage. On seeing the flaming ships coming on, the French fleet opened fire with little regard for its owns frigates in the outer line which had to slip their anchors. It was disputed whether the explosions de-

stroyed the boom by the great wash they raised or whether a very heavy fire-ship tore it adrift, but however that may be, the boom disappeared, while the explosions threw the French ships into panic as every fire-ship was thought to be an explosion-vessel.

The Frenchmen cut their cables in a wild effort to get into the Charente River and avoid the five or six fire-ships which had been well handled. Two French ships were fouled by the fire-ships although their crews saved them. But the French had unbent their sails and the night was dark and stormy. By midnight all the French ships except two were aground and some were much damaged by the bottom and by fouling each other.

In the morning at daylight Lord Cochrane signalled the condition of the French fleet, but the admiral 12 miles off made no move to destroy the helpless enemy who were seen to be making great efforts to get afloat. At 10.45 the English fleet got underway, but anchored out of gun fire of Aix. But Lord Gambier ordered the mortar vessel with a couple of supports to take position to bombard the French ships while he sent a division of three ships of the line to move into a position of readiness, so these ships advanced a mile.

This induced the two French ships not aground to get underway for the mouth of the river, where they also go ashore. Before high water four ships got afloat and moved towards the mouth of the river, but all grounded again in the mud.

Hereupon Lord Cochrane about 1 p. m. made a series of reports by signal; but as they produced no movement by the British Admiral, Cochrane lifted his anchor and allowed his ship, the Imperieuse, to drift upon the French fleet with the idea of forcing his chief to support him and destroy it. After getting within range he signalled "this ship is in distress and needs assistance immediately." Shortly after he anchored and opened fire on three ships. A little later Lord Gambier sent in the frigates; and in explanation at his court-martial testified that it was "unneccessary to run any further risk as the object of their destruction seemed to be obtained."

At 3.30 p. m. two ships of the line reported to Cochrane and a crescent line of English frigates was formed around the grounded ships on the Pallas Shoal. The Valiant, one of the ships of the line, signalled to the admiral "No doubt five more may be destroyed to-night." The answer was a recall. Three ships captured and one burnt was the result of the day's work.

Three transports were hastily converted into fire-ships and

with Rear Admiral Stopford on the Caesar they ran under the fire of the Oleron batteries late in the afternoon. The Caesar and Valiant grounded on the end of the Boyart Shoal, but got off as the tide rose and then the division got into Grandes Trousses anchorage. It was midnight before the fire-ships were ready and then the wind shifted so as to prevent attack and Stopford went out again, leaving Cochrane in the Imperieuse. The captured ships were set on fire at this time, so that they were mistaken for a new attack of fire-ships and the French opened fire on them and one captain even set fire to his own ship and abandoned her, but such was the excitement that it was badly done, and the fire went out, so in the morning he and his crew returned to her.

At 8 a. m. Cochrane with the small craft present renewed the attack without orders but he could not get his two frigates up on account of the wind and tide. On the 14th four French ships got up the river beyond all danger and Lord Gambier sent Lord Cochrane to England.

Thereafter, to the great astonishment of the French, no further efforts were made by the English. On the 17th only one French vessel, the Regulus, remained outside and she was near Fouras, in a position easy to attack. On the 20th a newly arrived mortar vessel attacked the Regulus, but she soon burst her only mortar. On the 29th, that is on the second spring tides since the disaster, the Regulus got inside and Lord Gambier sailed for England.

Napoleon's opinion on the matter was that "the French admiral was a fool and the Englishman just as bad. Had Cochrane been supported he would have taken every one of the ships."

The spirit of the French navy which was just beginning to revive after Trafalgar was destroyed by this affair, and in the opinion of some French officers this was its most serious effect. Until the end of the war five years later no important movement was undertaken by the French navy after this crushing blow.

The lesson of this operation is the great use which may and should be made of auxiliaries. Although the particular method used is no longer applicable under present conditions, yet we should spare our battleships now, as Gambier did then, but not as he did, when the time to use them had arrived. In this case, the French were anchored in a carefully chosen position, flanked by shoals and an island, so that only a frontal and disadvantageous approach was possible for the enemy. In the front of the French line, the boom prevented the English ships from coming to close quarters and boarding.

By the attack of the fire-ships and explosion-vessels, the French defensive formation was completely broken and the individual ships exposed to destruction.

Lord Gambier's unenterprising character deprived him of much of the fruits of success, but the whole affair is not the less instructive.

The Expedition to Flushing in 1809.

A MISTAKE AS TO THE KEY OF THE SITUATION.

In the spring of 1809 France was engaged in war against Europe and was carrying on two principal campaigns, one in Spain and one in Austria.

The Emperor of the French was desirous of re-establishing his navy in order to break the continental blockade maintained by England. He had established a great naval dockyard at Antwerp on the River Scheldt, and forced Holland to cede to France by treaty the port of Flushing and the mouth of the west branch of the Scheldt. This gave him a harbor of refuge at the mouth of the river whence his fleet could depart without delay and besides it offered the advantage of an auxiliary dockyard in an advanced position. After the disaster of Basque Roads, the only active French fleet lay in the Scheldt where it was a menace to the English West India trade. In this condition of affairs the English Ministry planned a combined operation against the French fleet in the Scheldt, hoping to accomplish two objects, that of relieving the West Indies from all fear of attack and thus easing the work of the blockading squadrons, and that of requiring the Emperor to despatch French re-enforcements to Belgium instead of to Spain and Austria.

But the very fact that a powerful English army was maintained in Spain rendered it difficult to arrange for the Netherlands expedition; and owing to the consequent delay and newspaper publicity the expedition was as closely followed in Paris as in London. The French successes in Austria, releasing the amies there, rendered the expedition to Holland unadvisable, as no Dutch uprising in its aid could then be expected; but obstinacy decided the Ministry to persevere and the expedition, whose organization began early in May, sailed from its rendezvous in the Downs on July 28, 1809, consisting of 37 ships of the line, of which four-fifths had their lower deck guns out and their holds prepared as

horse transports, 88 frigates and smaller craft, 120 hired armed vessels and 400 transports measuring 100,000 tons, carrying 39,000 men, including 3,000 cavalry, under the commands of Rear Admiral Sir Richard Strachan and Lieutenant General the Earl of Chatham.

The instructions to the expedition were to capture or destroy the whole of the enemy's ships afloat in the Scheldt or building at Antwerp, to demolish the dockyards and arsenals at Antwerp, Terneuse and Flushing and if possible to render the Scheldt no longer navigable for ships of war.

In the summer of 1809 there were at anchor in the West Scheldt above Flushing ten French seventy-fours, under Vice Admiral Missiessy. There were also several ships of the line building in various degrees of completion at Antwerp. Since the disaster at Rochefort, the Ministry at Paris had urged Missiessy not to lie off the entrance to the Scheldt, but to retire to Flushing. Missiessy dreaded the certainty of the annual outbreak of fever in the island of Walcheren more than the possibility of fire ships and received permission to maneuver in the Scheldt in case the English should approach.

Although the expedition was known to be fitting out, the authorities in Paris and in the Netherlands had made few preparations. When the English forces were sighted the country was very weakly garrisoned, a few hundred only for the great and powerful defenses of Antwerp, 4,000 in Walcheren and as many more in Bruges and Ghent, cities 20 miles south of the Scheldt. Everything therefore was for the moment in favor of the English, but the French peace with Austria rendered the utmost haste imperative to insure success.

On the departure from England it had been arranged that the left wing of the army, 13,000 strong, covered by a division of ships of the line should land on the sea side of Walcheren and take possession of the seacoast forts at Flushing. Another division, 5,000 strong, was to land on Cadsand and take the battery at Breskens. When the entrance to the West Scheldt should be safely held, the bulk of the expedition expected to sail up the river and land near Santfliet above the junction of the two branches.

On the 29th the English fleet was seen by the French lookouts, the French fleet lying at the time behind Flushing and word being telegraphed (semaphore signals) to Paris and Vienna, conscription was made for new levies and the country was stripped of troops to provide a garrison for Antwerp. The English troops

could not be disembarked immediately on account of unfavorable weather, so the expedition waited for a change. But as the weather did not change and as it was learned that the French fleet had not retired to Antwerp it was decided to send the main body to turn the position at Flushing by proceeding as far as possible up the East Scheldt and then landing on North and South Beveland, they were to march to the east end of South Beveland and seize Bathz, thus cutting off the French fleet. At the same time, the Walcheren force was sent into the channel east of Walcheren to land in quiet waters. All this took time, and after landing, Veer was bombarded by land and sea, and it was August 3rd before Flushing was invested.

The French general on the south side of the Scheldt had 300 men at Cadsand and he ran them about like stage soldiers to impress the English imagination while he summoned his troops from Ghent, where they had been cantoned to avoid fever. That night the French troops all got drunk and the general and his staff were the only available force, but the English had been alarmed by his display and could only land 700 troops at a time, so they unwisely waited for more boats which were needed elsewhere also, and could not come. By noon of the 30th, French re-enforcements of 1,500 men had arrived from Ghent, and on August 1 the English force off Cadsand, which foolishly had done nothing, moved around Walcheren and followed the rest of the army. The general commanding at Cadsand, being relieved from fear of debarkation in his neighborhood, threw all his re-enforcements as they arrived across into Flushing, doubling its garrison. Although some disconnected attempts were made by junior English naval officers to cut off the passage of these re-enforcements it was not until the 6th of August that Flushing was finally cut off from its communications with Cadsand; yet the cordon of English ships around the island had been complete for several days before, except at the most important point abreast of Flushing.

While half the English army prosecuted the siege of Flushing the rest spread over South Beveland and seized Bathz, closely supported by the naval light craft. The Dutch forces had little interest in supporting Napoleon, and retreated without resistance. The French fleet which the English troops hoped to cut off at Bathz easily moved up the river before them, and when the English took Bathz on the 2nd, the French fleet had retired behind the fort and boom at Lillo, leaving a flotilla of light craft to annoy the English at Bathz.

On the 9th a light division was sent to sound in the West

Scheldt off South Beveland, where it arrived by following the channel east of Walcheren, and on the 11th a re-enforcement of ten frigates ran in between Flushing and Cadsand, but, although under fire for two hours owing to the light wind, the squadron lost only two men killed. During this time the French garrison at Flushing had kept up a very active defense which cost it severe losses and did not much delay the construction of the English batteries. On the 13th the English batteries of 52 heavy pieces near Flushing opened fire, on the defenses, supported by two divisions of bomb and gun vessels, one on each side of the town. The wind prevented the line of battleships from getting up till the next day, when two of them grounded. The others hauled off and those aground followed them as soon as they could get afloat. The French fire ceased on the 14th, but the English continued theirs, and the next day terms were arranged but on the 16th the surrender was completed.

The English army and navy had a total force of 80,000 men and their aggregate loss by battle had been 112 killed and 500 wounded. On the 18th of August the French had at Antwerp 12,000 troops with four field pieces, but the fixed defenses of Antwerp were still without ammunition.

Although Flushing surrendered on the 16th, Lord Chatham remained there till the 21st of August, when he crossed to South Beveland. On the 19th the local fevers developed in the army. The Commander-in-Chief decided to leave 10,000 men in Walcheren and thus had 28,000 available for the execution of his instructions, namely to reduce Lillo, Liefken-Shoek and Antwerp, and then seize the French fleet. He now learned, however, that the garrison of Antwerp had been re-enforced to 35,000 men and that the French fleet could proceed five miles above Antwerp to Ruppelmond, and by removing guns and stores there they could go fifteen miles beyond that to Dendermond, a fortified town. While Chatham, in conventional fashion, had been knocking at the front door, the French had been pouring troops into Antwerp by the back gate. On August 26th a council of war decided to withdraw and on September 4th all the English forces withdrew below Bathz. Flushing was garrisoned and retained and the rest of the forces withdrew. In December, 1809, as the healthy season began, Flushing also was abandoned, obliging the blockading squadron to face the winter gales outside of the fort instead of at anchor off Flushing, where fire ships would have been the only danger and might have been guarded against.

This expedition was ill planned, because it was started without

sound information as to the navigation of the river or the state of its defenses. It was ill timed, as taking place during the sickly season which prostrated 14,000 men. It was ill managed, as being placed under command of a general who thought more of his own dinner than anything else connected with the expedition, and was of a very dilatory disposition, devoid of ability. The navy, better led, seems to have supported the army as well as could be expected, and its delays at various critical times are attributable to the weather.

Let us now examine what might have been done. Sir E. Codrington, a distinguished Britsh naval officer, who was present, in a letter of August 20th, from Bathz, says:

"Had a small force been left to invest Flushing while all the rest of the army accompanied by all the flotilla of gunboats pushed on to Bathz, crossed there and reached Antwerp immediately, they would have been before Antwerp on the 4th of August when no more than 4,000 French troops were there. The English fleet could only advance as fast as the army occupied the shores."

On the other hand, a French military writer points out, that in his opinion

"Blankenburg, 8 or 10 miles below the entrance to the Scheldt, was the proper place to disembark and take the great paved road for Antwerp, 26 leagues distant, passing through the cities of Bruges and Ghent, and throwing a heavy outpost to Courtrai southwest of Ghent. In this way the English might have appeared in great force opposite Antwerp at the fort known as Tête de Flandre in three days after landing and without having met any opposition and there is no doubt that the city would have fallen immediately. In the meantime the navy could have seized Cadsand batteries and entered the river at its leisure, chasing the French fleet up the river, where the army would have met it and prevented it from escaping up the Scheldt. The presence of the navy and the reduction of all defenses on the river would have secured the retreat of the army in the face of the gathering French forces, after the accomplishment of the objects of the expedition."

In reviewing this expedition, it is first to be noted that the Ministry was wrong in directing this great force upon Belgium. For a year past England had been making great effort to sustain the insurrection in Spain, and the troops diverted to Belgium would have served to double Lord Wellington's forces present at the victory of Talavera, fruitless owing to lack of men to extend his line of operations. Putting this point aside, and considering the conduct of the Walcheren expedition, it is apparent

how entirely Lord Chatham misconceived his task. The object was to destroy the French fleet. The actual destruction was the proper duty of the English fleet, but the army should have prevented the French fleet from escaping. This should have been done by seizing two points, the great stronghold of Antwerp which might shelter the fleet, and the town of Ruppelmond where the river shoaled. As the ships had to take their guns out to pass Ruppelmond, it is obvious that a field force could retain them at this point. Instead of pursuing this course, Lord Chatham besieged Flushing, a point which was no real obstacle to the joint pursuit of the French fleet. By the time Flushing yielded, Antwerp had made good her powers of defense, fever was destroying the English army, and the French fleet was safe behind Antwerp.

W. L. ROGERS,
Lieut. Comdr., U. S. N.

(*To be Continued.*)

WEST POINT—PAST AND PRESENT.

(AN HISTORICAL RESUME.)

"What shall I say of the graduates of West Point?

"The records of the War Department, the tablets in our national cemeteries, and the tributes to the valor and the patriotism of the graduates of West Point found in every American history speak for these men, who, doing everything and claiming little, have led, instructed and maintained the reputation of our Army for a century."

—*General Alexander Stuart Webb.*

From letters and other records it has been definitely determined that George Washington was first to propose the creation of a Military Academy. It is doubly fortunate, as Professor C. W. Larned says that "to such an origin is added the providential gift of an organizing mind associated with a character of superlative integrity and power, and the qualities presided over its formative period in the personality of its great superintendent—Thayer." Whatever of reputation the Academy may possess throughout the country and abroad dates from the advent of Brevet Major Sylvanus Thayer of the Corps of Engineers as its superintendent on July 28, 1817. "This officer held office until relieved on July 1, 1817, a period of sixteen years, and the institution has followed so exactly on the lines marked out for it by that distinguished officer to the present day, that it requires an intimate knowledge of its inner workings to discover changes incident to a more modern system of instruction.

The Journal of the House of Representatives, 3 and 4, Congress 7, shows that George Washington inquired, as long ago as 1793, "Whether a material feature in the improvement of the system of military defense ought not to be to afford an opportunity for study of those branches of the art which can scarcely ever be attained by practice alone."

Thomas Jefferson further states: "That when the preparation of this (the above) message was discussed in the Cabinet, the President mentioned a Military Academy as one of the topics which should be introduced, and that he himself raised the objection, that there was no clause in the Constitution which warranted such an establishment;

but nevertheless the above sentence was incoroprated in the message and was again the subject of special deliberation."

The reply of Washington was, that he would recommend nothing prohibited by the constitution, but if it were doubtful, he was so impressed with the necessity of the measure that he would refer it to Congress and let them decide for themselves whether the Constitution authorizes it or not.

From this it appears that Washington himself entertained doubts respecting the constitutionality of establishing and maintaining a Military Academy in this country, and it is well known that Jefferson was equally opposed to such institution for the same reason, but in the end he gave active support to legislative measures for creating and afterward promoting its efficiency.

By the Act of March 16, 1802, the Military Peace Establishment of the United States Army was fixed.

The act authorizes the President to organize and establish a Corps of Engineers, to consist of five officers and ten cadets, and provided that it should be stationed at West Point, in the State of New York, and should constitute a Military Academy. The Academy, with ten cadets present, was formally opened July 4, the year of the Act.

Subsequent acts of Congress, in 1803 and 1808 authorized forty cadets from the artillery, twenty from the light artillery, one hundred from the infantry, sixteen from the cavalry, and twenty from the riflemen; but few of these were appointed, and no provision at the Academy was made for them. In 1810 the Academy was deprived of nearly all means of instruction and officers and cadets had difficulty in obtaining the pay. During 1811 and a part of 1812, although war was imminent, the Academy was without officers or cadets. To include this time, seventy-one cadets had been graduated; they had entered without mental or physical examination; at all ages, from 12 to 34, and at any time of the year.

By act of Congress of April 29, 1812, the Academy was reorganized. The provisions of this Act established the general principles upon which the Military Academy has since been conducted and controlled; a more adequate corps of professors was authorized; a maximum of two hundred and fifty cadets was fixed, and the age and the mental requisites for admission were prescribed.

From the date of its establishment until August 28, 1866, the superintendents of the Military Academy were always selected from the Corps of Engineers, and it was not until Col. Thomas G. Pitcher, Forty-fourth United States Infantry, was assigned, under legislative

enactment, to that position in the year 1866, that the original method of selection was abrogated. Col.* Jonathan Willaims, head of the Corps of Engineers, the first superintendent, under date March 14, 1808, reported that the institution was in point of fact first established at West Point in the year 1801, under the direction of a private citizen (George Barron), at a time, however, when it was a mere mathematical school for a few cadets then in service. The Act of 1802 provided that the Corps of Engineers should be stationed at West Point and constitute a Military Academy. The Act of Congress of April 29, 1812, laid the Military Academy on a broader basis. Proceedings in the House of Representatives showed public sentiment was strongly and almost unanimously in favor of the perpetuity of this method of providing for future military institutions. At this time there was still contention as to the constitutionality of the institution, and motions were made in Congress to abolish the Military Academy, to pay off the cadets, and discharge them from service. As Boynton remarks, "It is the fate of every institution of national importance, which is created and sustained by our Government, to undergo periodical probing and investigation, and in this there was no escape for the Military Academy. Boards of whatever shade or complexion their membership may have been politically, have insensibly lost their predilections or prejudices, which have melted away and have been converted into the strongest approbation in the crucibles of personal inquiry and conscientious judgment. No institution in the land has undergone such an ordeal of investigations from boards and congressional committees, and none seeks closer examination and scrutiny."

During the administration of Col. Jonathan Williams the number of cadets was restricted to fifty—forty from the artillery and ten from the engineers. Colonel Joseph G. Swift succeeded Colonel Williams on July 31, 1812, and annual boards of visitors were at this time provided for by law. Captain Alden Partridge of the Corps of Engineers, succeeded Colonel Swift January 3, 1815. Under date September 4, 1816, the uniform, worn to this day by the cadets, was prescribed. Brevet Major Sylvanus Thayer, of the Corps of Engineers, succeeded Captain Partridge as superintendent on July 28, 1817, and held office until relieved on July 1, 1833, a period of sixteen years. At that time the cadets engaged to serve for a period of eight years, as they do at present—four years as cadets and four years as commissioned officers after graduation. Colonel Rene E. De Russy succeeded Colonel Thayer on July 1, 1833, and he again was succeeded by Major Rich-

*Local rank of colonel.

ard Delafield on September 31, 1838. Major Delafield, as Boynton tells us, "Did much to improve the Academy, being endowed with administrative abilities of a high order and an inflexible resolution to maintain discipline. His early efforts were directed toward defining and establishing the boundaries of the public lands at West Point, and removing all unauthorized individuals who had settled thereon." Until very lately,* and under enactment of law, but one cadet was appointed from each congressional district. This law, dated March 1, 1843, required that the appointee should be a *bona fide* resident of the district from which appointed. The President was at the same time empowered to appoint ten cadets annually *at large,* this to provide for the sons of Army and Navy officers who had no permanent residence or claims for appointment in congressional districts. The restrictions as to appointments at large were not mandatory, but the President usually appointed sons of officers of the Army and Navy, and particularly sons of officers who had been killed in battle or who had died in the service. "Major Delafield was succeeded, April 15, 1845, by Capt. Henry Brewerton, and this officer greatly improved the Academy in many ways. The brilliant success of the American Army in Mexico, untarnished by a single defeat or doubtful action, furnished convincing evidence that the Academy was doing its work well in the training of its officers."

"When the conflicting voices of partisan spirits are hushed, and the rancorous jealousies of envious and malignant disputants are consigned to oblivion, posterity will gaze upon the pile of strange artillery, and still stranger-looking flags, and their mutilated flagstaffs, deposited at the Military Academy in 1849, and read with them these words of the great soldier, Winfield Scott, Commanding General of the Army of the United States, 'I give it as my fixed opinion that but for our graduated cadets the war between the United States and Mexico might, and probably would, have lasted four or five years, with, in its first half, more defeats than victories falling to our share; whereas in less than two campaigns we conquered a great country and a peace, without loss of a single battle or skirmish.'" The General further says:

"As under Providence it is mainly to the Military Academy that the United States became indebted for the brilliant achievements and other memorable victories in the same war, I have a lively pleasure in tendering the seven trophies (semi-national) to the mother of so many soldiers and patriots."

In 1852 Capt. and Brvt. Col. Robert E. Lee, who had distinguished

*Since the Spanish-American War.

himself as aide-de-camp to General Scott in the Mexican War, and who later became the General Commanding the Confederate Armies operating in Virginia, succeeded Captain Brewerton as superintendent, and "under his administration the course of study was changed by order of the Secretary of War to include a period of five instead of four years, and the new riding hall was completed. This greatly increased the opportunities for cavalry exercise and interest in this department."

Colonel Lee was succeeded by Col. J. G. Barnard on April 1, 1855, Lee at the time having been selected by Jefferson Davis, the then Secretary of War, as one of the lieutenant colonels of the two new cavalry regiments; or rather, Colonel Lee was assigned to the Second Cavalry, this assignment being incident to certain transfers in perfecting the new organizations; and this required that he should leave the Military Academy under the then existing regulations, which made it obligatory that none other than the officers of the engineers should hold this position. Colonel Lee for a period of six months in Texas commanded a larger number of troops than had ever before been assembled in the United States since the Mexican War; and his experience with this command, coupled with his earlier experience in the Mexican War, stood him in good stead when he became the Commanding General of the Confederate Army.

From Cullum's Register of Graduates, Vol. III, the following extracts have been made: "I do not think we claim that West Point can in four years accomplish miracles and utterly remold the character of its pupils, but it has in the past and will make in the future men more useful in the details of life, more reliable and faithful to their trusts, whether private or public, and more national in their attributes and aspirations, than any other system of education hitherto tried; and these results are cheaply attained by our national Military Academy."—*W. T. Sherman.*

"Aside from its value to the graduates of the Military Academy, as containing a condensed and reliable summary of their military and civil history after graduating, it must be a source of just pride to them to see there recorded indisputable evidence of as much loyalty among the alumni of our Alma Mater as can be met with among any other class of American citizens.

"I venture unhesitatingly to say also that no other institution of learning in the country has contributed more to the advancement of science and literature than the Military Academy at West Point."—*G. H. Thomas.*

"It is unfortunately true that many forgot the flag under which

they were educated, to follow false gods. But who were the leaders of this treason but the honored and trusted in the land, filling, or who had filled, the highest places in the Government—Senators, Representatives, Members of the Cabinet, Foreign Ministers, Judges of United States courts, and even those who had been elected by the people to fill the highest offices in their gift? Was it then a greater crime for graduates of our national Academy to forsake their country than for the highest officials in every branch of the Government—executive, legislative, and judicial—who, from the seceding States, almost to a man, joined the Rebel standard?"

* * * * * * * *

"The statistics show that the West Point part of the Army has been by far the most loyal branch of the public service; that nearly four-fifths* of its graduate officers remained faithful; that one-half of those from the South (slave States) stood firm by the Stars and Stripes; and in the battles for the Union, that one-fifth of those engaged laid down their lives, more than one-third, and probably one-half, were wounded, and the survivors can point with manly pride to their services here recorded for the preservation of the Nation.

"With these facts stated, the Academy needs no eulogy, and can securely rest her honor on her loyal children, and her efficiency on her turbulent children as well."—*North American Review.*

Capt. Boynton, in his History of the Military Academy, tells us that "The Academy had only the cold shoulder of the administration which in the meantime had come into power, and its early years were not very prosperous. The result of this policy was, that when the second war with England broke out, there were but sixty-five West Point men in the service. In the course of that war the record of the first two years shows in the Army little but bad generalship, blunders, and defeats. Americans, however, learn war rapidly in the field, and the last campaigns were more creditable to our arms. In these campaigns West Point men took a conspicuous part. Of those in active service, one-sixth were killed, one-twelfth were wounded, and one-fifth of those who survived received one or more brevets for gallantry and meritorious conduct.

"During the thirty years which followed the close of this war, the officers of the Regular Army were employed in fighting the Indians, a training which, although useful, was yet very incomplete. At the breaking out of the war with Mexico, five hundred graduates of the

*This will be a surprise to some readers.

Academy were in the service, and many others re-entered it from the occupations of civil life. In this war the utility of military education was strikingly proved. In less than a year and a half our small Army in Mexico won thirty battles, took forty thousand prisoners, a thousand cannon, besides an immense amount of small arms and munitions of war, ten fortified places, and the capital of the enemy, and acquired territory for the country which now yields every year a revenue equal to three times the whole cost of the contest. General Scott, himself not a West Point graduate, thus summed up the lessons of this war: 'I give it as my fixed opinion that but for our graduated cadets, the war between the United States and Mexico might, and probably would, have lasted some four or five years, within its first half more defeats than victories falling to our share.'

"These two brilliant campaigns gave an extravagant fame to the Military Academy, which, at the breaking out of the Rebellion, worked to its injury. The people expected impossibilities of it. In General Cullum's words, 'The youthful graduates, who perhaps had never commanded a larger force than a company, or a battalion, were expected at once to lead vast armies of undisciplined troops through unknown morasses and tangled wildernesses to assured victory.' It was inevitable that the popular expectation should be disappointed, and that West Point should therupon be as extravagantly decried as it had been extravagantly lauded. In this reaction of public feeling, the fact that the Rebel armies were led by West Point men was argued with pertinacity as an additional argument against the usefulness of the Academy.

"But as the war went on West Point men steadily replaced the officers appointed from civil life in the higher commands. Men who before had hard experience only in petty war, learned with wonderful facility to practice grand strategy, and successfully conduct campaigns of unparalleled difficulty and importance. Grant and Sherman reached their proper places. The annals of the last years of the war justify General Cullum's boast that the 'cost of educating the whole of the seceding graduates was not more than was saved by the military knowledge of loyal graduates *on every day of the Rebellion.*'

"The West Point Academy has given the country between two and three thousand educated officers; has procured for our Army a world-wide reputation; and, at the breaking out of the Rebellion, it kept nearly one-half its Southern graduates loyal to their country; yet it has never received, in any single year, an appropriation larger than is required to maintain a squadron of cavalry; and has not cost

the country, from 1802 to the present time, a greater sum than was spent in any *single week* of the last years of the Rebellion.

* * * * * * * *

"This leads us to speak of the loyalty of West Point graduates. It is a common notion that they were under peculiar obligations to the United States Government. This mistake is well exposed by General Cullum, who argues unanswerably that they were educated by the country for its benefit, and not for their own; and that the event has proved the economy of the Academy, even in dollars and cents. This is clear from a view which the author only hints at. Every cadet is enlisted to serve four years after graduating. In these four years, most of them—all those in staff corps—have responsibilities and perform duties that in commercial life would command pay enough higher than they receive to amply compensate for the cost of their education. It is difficult to see that the crime of a Southern graduate, in rebelling, is any greater than that of any other Government official. —*New York Evening Post.*

The following are the superintendents of the United States Military Academy with the local rank of colonel, following Col. Robert E. Lee: John G. Barnard, one and one-half years; Richard Delafield, four and one-half years; Peter G. T. Beauregard, five days; Richard Delafield, one month; Alexander H. Bowman, three and one-fourth years; Zealous B. Tower, two months; George W. Cullum, two years; Thomas G. Pitcher, five years; Thomas H. Ruger, five years; Brig. Gen. John M. Schofield, four and one-half years; Brig. Gen. Oliver O. Howard, one and one-half years; Wesley Merritt, five years; John G. Parke, two years; John M. Wilson, three and one-half years; Oswald H. Ernst, five and one-half years, and Albert L. Mills.*

No material changes in the post of West Point have taken place until within recent years. Under an Act of Congress of 1900 the Corps of Cadets has been considerably increased by the appointment of two from each State at large and thirty from the United States at large. These, with the increase coming under the new apportionment of members of Congress, make the maximum number five hundred and eleven.

The memorial hall and gymnasium and a new academic building have been completed. The old library and philosophical academy has also been entirely renovated and the whole building converted into a new and modern library. The cadet mess hall has been enlarged by

*The years are approximately correct.

taking in the officers' quarters at its north end and the officers' mess at the south end, and some fourteen or more sets of officers' quarters have been built.

Roads are now being constructed at considerable expenditure of money and labor—one from the south dock to the south gate and guardhouse direct, and another from the Old Kinsley House to the site of the old cadet hospital. On the latter road new officers' quarters are being built to supersede the old sets, which will be torn down as rapidly as this work can be done.

We have said nothing of the professorships, but they of course were created to correspond with the course of study in all the subjects taught at that institution; and these professors, who held prominent positions, and were in most instances appointed from the Army, were assisted by instructors detailed for periods of four years. These instructors were all commissioned officers of the Army and were assigned, upon the application of the professors of the several departments, from the list of those who had distinguished themselves at the Academy, or shown special aptitude in the branch of study for which they were required.

During the Civil War and the Spanish-American War the selections were, from necessity, less restricted, as it was necessary to accommodate the assignments at West Point to conform to the contingencies of service. It is well here to note that in spite of what has been said respecting the large proportion of cadets who resigned and went South at the outbreak of the Civil War, there were two hundred and seventy-eight cadets in the battalion at the time; eighty-six of this number were from the Southern States; sixty-five resigned and joined the Confederate Army, and twenty-one remained loyal and continued their studies in the junior classes at the Academy.

Congress has appropriated five and one-half million dollars for the contemplated improvements and enlargement of the Academy. The present cadet barracks are to be renovated and sinks and bathing facilities provided in the basement. This will relieve the area of the old boiler-house and other out-buildings. Additional cadet barracks are to be constructed and will be located on the line of officers' quarters north from the site of the present gymnasium, which latter building is to be torn down and rebuilt on another site. The second academic building will take the place of the old chapel. A new chapel will be built on the hillside in rear of the present gymnasium. There will also be constructed a new and larger riding hall on the site of the present riding hall, stables, and cavalry barracks. New cavalry bar-

racks and stables, also artillery barracks and stables will be built at the south end of the post against the foothills, and the ground to the east converted into a new and enlarged cavalry and artillery drill-ground. The old cavalry drill-ground is to be sodded over and thrown into the plain. An officers' club and mess building has already been constructed south of memorial hall. The Cemetery has been greatly enlarged and the plan for its improvement, which is being carried out, will make it one of the most beautiful and attractive spots at the point. A new hotel is to be constructed on the hill in rear of the old hospital, convenient to the south dock and railroad station, and the site of the present hotel is to be used for the Superintendent's Quarters and the Headquarters building, and many changes and improvements in the officers' quarters will be made.

Professor Larned, in his interesting paper on "The Genius of West Point," says:

"We have, already instituted and in successful operation, the special schools for all arms of the service, analogous to those of the Continent, and we have, in addition, West Point, with all that it stands for in its exalted code of integrity, duty, resourcefulness, self-confidence, discipline of character and habit of thought. For the making of this broad foundation is needed four years of the influences and work which co-operate to produce it. Not a moment can be spared from these periods of cumulative influence which in each year leave so marked and plainly discerned an effect upon the character development of the cadet.

"*Nothing more destructive of the genius of West Point could happen to it than its disintegration into a school or schools of special instruction for separate corps of the army. All that has made it great in the past and all that promises increased usefulness in the future centres in the preservation of its integrity as a military university for the production of a well-balanced, broadly developed, high principled soldier.*

"Four years of constant drill, practical instruction in military operations, and respectful submission to the will of his superiors, make him a soldier in the true meaning of the word. He may or may not have the talents of a great general, but he has at least the instincts of a soldier and a knowledge of the duties and technical requirements of all corps of his profession. He has above all, an understanding of the term 'duty' which makes it the motive power of his professional life and simplifies for him all complex questions of practical ethics. The motto of his *alma mater*—'Duty, Honor, Country'—is the philosophy

of his life. To do his 'Duty,' to keep bright his 'Honor,' and serve faithfully his 'Country' is the hereditary ideal of every son of West Point."

Where, if not at the United States Military Academy, Professor E. S. Holden inquires, shall we find a system in which the rewards and punishments are the certain and immediate sequence of the act?

Here, at this institution, are appointed annually from every congressional district in the country, candidates who are entirely representative in character, of good health, and familiar with the ordinary studies of the grammar school; youths between the ages of 17 and 22, who represent every class in society from rich to poor. Side by side stand the lads who have had the most delicate moral nurture, or none at all; who are models of truthfulness, or already contrivers of escape from duty and obligations. Every inequality of society is represented in an entering class of cadets. It is necessary to insist upon this point in order to appreciate the results of four years of training.

In a few days after entrance, external inequalities vanish as if by magic. Duties, privileges, dress, rooms, food, all are alike; no one is permitted to have money, or at least to spend it. In a week every sign of external inequality has disappeared. Personal inequalities, of course, there are and necessarily must be.

There is absolutely no favoritism by the instructors. The very corner-stone of the most effective education is the marking system, the immediate consequence of an academic performance, wherein absolute and complete justice is attained. The marks are posted, and each cadet knows what his performance is worth. Frequent recitations, due to a larger proportion of instructors to students than at any other institute, afford an opportunity to thoroughly test each cadet daily, and no failing can possibly be hidden. The effect on the character of the student is immediate and admirable.

Here there can be no shirking of duty, and every shortcoming in the course of the day is sure to bring its corresponding penalty. There is no moment when the cadet does not fully understand that his performance of duty now will influence his whole official career hereafter. This is fully recognized, and its perfect justice admitted by all. The consequences following actions are certain. Each student is trained in the heathen virtues of fortitude and justice. It is at once his duty and his advantage to be proficient in his academic work.

Now for the system affecting the official character of the cadet—how is his official conduct molded and tested? Again the marking system; the effect following the cause, certain and immediate. "Late

at roll call" carries one demerit; "absent," ten; "slight untidiness in dress," one; "inattention," to duty or at drill, five; and so on.

There are eighteen thousand opportunities during four years, at each one of which the duty of punctuality is emphasized—one demerit each. One hundred demerits in six months insure dismissal. Every one knows this. There is no talking; only simple laws are prescribed, and each one of them is just. The final result is like the result of gravitation—inevitable, inexorable, just, and immediate.

The conditions stimulate official conduct and there is a standard of personal honor kept up among the cadets themselves. A liar or coward is shunned by all his comrades, and a student guilty of conduct unbecoming an officer and a gentleman has his connection with the Army at once cut short.

From what has gone before, it may be seen that the system presented by Professor Holden, and which is enforced at the Military Academy, possesses advantages that no other can supply. The moral obligation entered into, and which transforms the man in a single day or hour, is the oath of office administered, an obligation paramount, immediate, and continuous.

At a conference of the head master of the great English public schools one of the speakers severely arraigned the traditional educational methods the schools were forced to employ in order to pass boys as officers into the service. A military correspondent of *The Pall Mall Gazette,* criticising the Sandhurst and Woolwich methods, declares the British authorities admit that West Point is in advance of anything in England. He describes the democratic and severely competitive system in vogue there, saying: "Education at West Point is serious thoroughness rather than an extension of attainments. Its principle is controlling education, together with the knowledge of how to make use of it. Like all exceptionally good education, it is enormously costly, perhaps the most expensive in the world. But in many ways it is said to be by far the best. An exhaustive comparison of West Point with our own military colleges, as educational mediums, is to the disadvantage of our institutions."

It has long been a mooted question whether the class grading of cadets at the time they leave the Academy should be accepted as evidence of ability that shall determine success in after-life. It is certain that at no other institution in the country is "class standing" such an accurate gauge of *scholarly* attainments in the course of study pursued, as at the United States Military and Naval Academies. There are, however, numerous instances where, if the course of study were

more extended in point of time, the ultimate grading of class members would be materially altered.

It is well understood that at all institutions of learning—Government academies and common or high schools excepted—the best scholars and the cleverest men do not "put their best foot foremost" as cadets are compelled to do. In fact, under the marking system at the national institutions, which is the basis of class standing, the grading secured determines for the cadet an assignment to that arm of the service which he may prefer, the chances for preferment being commensurate with his rating under this system.

In this connection an interesting case may be presented;—that of Patrick O'Rorke, who was born in Ireland, his parents both dying on the voyage to this country. Upon the arrival of the ship which brought O'Rorke to our shores, he was taken to an orphan asylum, where, at the age of 12, his intelligence was found to be of such high order that educational advantages commensurate with his ability were offered him, of which he was not slow to avail himself. As long ago, then, as the year 1857, he was appointed a cadet to the Military Academy.

This was at the period of a presidential campaign when the father of one of his classmates ("John" ———) was then a candidate for the high office. A newspaper clipping was forwarded to O'Rorke, in which his merits were applauded, but rather more as a foil or in a spirit of detraction of good "Old John," as the cadets were wont to call him. It was here argued that a boy born of immigrant parents reared in an orphan asylum could attain under the impartial system of the Academy the highest honors of his class, and it was also shown that the son of an influential citizen, a candidate for the highest office in the land, with a backing which should determine for him some degree of favoritism, was so near the foot of his class that he was in imminent danger of being "found deficient" in his studies or else dismissed for demerit at the then next ensuing semi-annual examination. "Pat's" permission to show the clipping to some of the "fellows" was asked, but he instantly tore the paper into small bits, and replied, "That would never do; it would hurt poor John's feelings." As a further illustration of the instincts of this man, he was heard to remark at another time, that when he entered the Military Academy he felt some degree of apprehension lest he should be unequal to the social requirements of an army officer, lacking, as he did, home training and home influence. Accordingly, he said, he had made it his best endeavor, while at the Academy, to note the bearing of men in

the class who were better favored by circumstances than he had been. For reasons such as these, "Pat" O'Rorke was beloved not only by members of his own class, but by all others at the institution. He was regarded by officers, as well as by cadets, as a model man, and when on one occasion he was asked to draw lots with another of the class, less popular than himself, for the highest honor, he declined to do so upon the ground that "the lot had already been determined in favor of his rival; the latter having held above him in the previous year." He was compelled, however, to accede to the Academic Board's decision, and drew the lucky straw, amidst the rejoicings of the entire Corps of Cadets.

Not long after this, at artillery drill, the No. 4, serving as cannoneer, jerked the lanyard prematurely and fired the rammer through O'Rorke's hands, when he, O'Rorke, was acting as No. 1 in the gun detachment. Fotunately O'Rorke had but a moderate grip upon the rammer staff at the time, and although his gauntlet was dragged off, his arm did not go along with it. The indignation expressed at a called meeting of the class was such as would probably have compelled the resignation of the careless cadet, had the accident resulted more seriously.

Two instances have occurred at the Military Academy in the course of artillery drill, where the right arm of the cannoneer was torn off. In one case the man died. In the other, the victim survived; to be allowed, after graduation, to go upon the retired list with the rank of second lieutenant. The cadet, who, in this latter case, was the cause of the disability of his classmate, was, comparatively speaking, a wealthy man, and settled upon his maimed associate a sum sufficient to compensate in some measure for the consequences of his carelessness.

The junior class of 1861 had marked as the future Commander of the Army of the United States this man O'Rorke, who, had he been spared, would probably have justified the class prevision. Shortly after graduation, he was appointed colonel of a volunteer regiment from the State of New York, and fell, mortally wounded, at the head of his regiment at the battle of Gettysburg.

It is admittedly true that "it is difficult to guard against a lack of home training in young men chosen with a democratic disregard of this prerequisite, but who are, in the highest sense, gentlemen; gentlemen not merely in the matter of familiarity with the usages of good society, but in the large sense of the term." Taking this as a text, the case of O'Rorke comes well within the scope of these remarks.

"A BALLAD OF TRIPOLI TOWN."

Over the reach of the harbor mouth the Philadelphia lay
To keep her watch on the pirate sea and muzzle the pirate Bey,
"And swift must be that Moorish bark that out of the north comes down
And carries her load of Christian slaves to the mart at Tripoli town."

Out in the offing day by day her watchful way she kept,
And ever the lookout's careful glass the fair horizon swept,
Dreary the game and dull the watch as lazily on she swayed,
With never the sound of an angry gun to lighten the lone brigade.

"A sail! A sail! was the lookout's cry, and close to the southern shore
A dark-hulled xeboc hugged her way and up for the harbor bore,
Then shrilled the notes of the boatswain's pipe, the men to their quarters flew,
And the frigate reeled to the sudden strain as her quivering stunsails drew.

The green sea whitened beneath her bows and lifted in cloudy spray
And her tall masts bent to the press of sail as she gained on the flying prey,
But over a chartless way she sailed, and a hush fell over all,
At the sudden hail from the masthead high and the leadsman's frightened call.

Over the reef of Kalinsa the treacherous seas are green,
With never a hint of the rising shoals or the rocks that lie between;
And there with a crash the good ship struck, and deep in the sands she lay,
And her rigging strained and her timbers groaned as she stopped in her sudden way.
In vain were her masts felled one by one, in vain were the weights run aft,

She lay in the clutch of the clinging sands in spite of the sailors' craft.
Then out of the harbor crowding sail the Barbary gunboats came
And lay at the heels of the helpless ship in a crescent of smoke and flame.

With never a gun to make reply, the raking fire she bore,
And her decks grew rougher with splintered wreck and redder with flowing gore,
Till the starry ensign fluttered down at the beck of the pirate horde,
And the captive crew were led away to the throne of the pirate lord.

Then loud the pirate's shrilling yell exulted on the air,
With the sounding drum and the cymbals clash and the long horn's windy blare;
And up to the town they towed the ship on the lift of a rising tide,
And moored her fast in the channelway swept o'er by her black broadside.

The pirate Bey laughed deep and long; "And where is he will dare
To pass the reef at the harbor mouth and enter the pirate lair?"
On yonder bay my gunboats glide, my forts look grimly down
And the guns of a Yankee frigate guard the way to Tripoli town."

Was ever a sea by ever a shore where perilous chances are
That has not sung to a Yankee keel or pillowed a Yankee tar?
Was ever a way so danger deep that way he dare not go?
From shore to shore with a deep sea roar old Ocean answers "No."

Up to the roads of Tripoli town a little squadron drew,
And every ship at the mizzen peak a starry ensign flew.
Down to the harbor mouth they stood and close to the reef they ran,
And the Constitution's stately shape sailed grandly in the van.

"Oh, shame to every Yankee tar the billowy deep who plies,
For over a captured Yankee ship a pirate ensign flies,
And shall she carry a pirate crew to harry a pirate prey?
Who comes to sink her where she lies? Decatur leads the way."

We knew the voice and we knew the man, and a rousing sailor cheer
Rang deeply over the tumbling sea as we sprang to volunteer;
For he was a hero truck to keel, and a sailor born and bred,
And through the gate of an angry fate we'd follow where he led.

We fitted a captured pirate ketch for the deed we had to do,
And all day long from stem to stern the carpenters beat tattoo.
They gave her a slovenly merchant look and smeared her with merchant muck,
But her hold was stowed with a deadly load and filled for a deadly work.

Though all were willing but few could go, and many were left behind,
But a gibe or jeer for a luckier ear will soothe a troubled mind,
And when away from the great ship's side the little ketch moved slow,
Our shipmates hung on the rail and sung, as they watched us go:

"Oh, say good-bye to your Nancy Jane, and look your last on me,
And what'll you say as you're led away in a swaggering pirate's lee,
And what'll you think as you douse your glim, and where'll you're funeral be,
Under the nigger driver's whip or under the deep blue sea?"

We watched the ships as they gave the breeze their spreading wings of snow;
We watched their sails in the sunset pink, their hulls in the distance low,
And over the darkening western hills we saw the sun go down,
And the daylight fail as our lonely sail sped on to Tripoli town.

A ghostly shape in the gathered dusk, to the perilous way we passed
To the sound of the rigging's mourful hum and the groan of the straining mast,
To the haunting voice of the rising wind and the lilt of the rising tide;
And the low waves sung with a mocking tongue, as they lapped along the side:

"Oh, say good-bye to your Nancy Jane, and look your last on me,
And what'll you say as you're led away in a swaggering pirate's lee,
And what'll you think as you douse your glim, and where'll your funeral be,
Under the nigger driver's whip or under the deep blue sea?"

Starboard and larboard dark and dim the gunboats watched the way,
And dead ahead with a staylight red the towering frigate rose,
And the forts behind with their ramparts lined with twenty thousand foes.

Up to the shadowy ship we drew in the cloak of the friendly night,
And we lashed the ketch to her swelling side, and grappled her fast and tight.
To a single shout and a single shot and a single frightened hail,
With sword in hand our silent band sprang over the lofty rail.

From deck and hold at the cutlass's point we scattered the craven crew,
From deck to deck and from hold to hold with the blazing torch we flew;
We spread the powder, pitch and tar, and scattered the embers free,
And loosed the grapples and cut the lines, and stood for the open sea.

A puff of smoke in a rolling cloud along the water swept,
A tongue of flame from an open hatch to the hurrying breezes leapt,
And then like sinuous snakes of flame the rigging burned on high,
And wrapped the mast in a fiery blast, and reached for the reddening sky.

Redder and redder rose the flame, till over the glowing bay,
Bright as the glare of the noonday sun, a crimson radiance lay;
We saw the gunboats limned in fire, the fortress dull and brown,
And through the blaze in a golden haze the towers of Tripoli town.

And the little ketch stood boldly on, in the growing light displayed,
Though fort and castle and gunboat roared in furious cannonade.
And through the terrible lines of fire, unharmed, untouched, we went,
For the scared corsair in the empty air his harmless thunders spent.

We reached the offing, we shortened sail, and safe in the distance lay,
Till a roar like the roar of a thousand guns rang over the pirate bay,
Till the light was quenched in the hissing wave, and the black night settled down
On the fortress grim and the gunboat dim and the towers of Tripoli town.

The blue bay curves by Tripoli town where the minarets point high
From the glaring waste of the yellow hills to the blue of the glaring sky,
And the white sails skim by Tripoli town and over the bay they go,
But the pride of the old time Yankee fleet lies fathoms deep below.

ROWAN STEVENS.

STRATEGY AND TACTICS OF THE RUSSO-JAPANESE WAR.

EIGHTH PAPER.

June 1-July 10, 1904.

OPERATIONS OF THE MAIN ARMIES.

A BIRD'S-EYE view of the general situation of the two armies is a necessary preliminary to the understanding of the movements which led up to the most important battle of the war thus far.

The Russian main army occupied a strong line in the mountainous country east of the railroad, extending in a northeast and southwest direction from a point about 15 miles north of Sinyan (about 30 miles northwest of Takushan) to a point ten miles west of Saimatsi*, about 35 miles northeast of Feng-wang-cheng, covering the Motien and other passes, the divisions arranged from right to left in the following order: 5, 2, 6, 3. The front of this defensive line was covered by the Russian cavalry, extending from a point about 20 miles east of Wafangkou (on the railroad, about 50 miles south of Kaitchou*) through Sinyan to Saimatsi, arranged in the following order from right to left: The Usuri Cavalry Brigade, the Siberian Cossack Division, the Mitchenko Cossack Brigade, the 1st Arg. Cavalry, the Rennenkampf Cossack Division. The IV. Siberian Army Corps was in reserve at Mukden.

The Japanese main army (the I. Army, consisting of the Guard, the 2nd and the 5th Divisions) was concentrated to the west of Feng-wang-cheng, on a line running northeast and southwest from a point about 30 miles west of Feng-wang-cheng to a point about 20 miles northeast of that place, the center near Feng-wang-cheng. The II. Army, after landing at Pietzewo and fighting the battle of Kinchou, had been relieved in front of Port Arthur by the III. Army (landed at Kerr Bay and on the west coast of the Liaotung Peninsula) and had turned northward to act on the flank of the Russian main army and force the latter into the interior of Manchuria.

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*Or Samachi. *Or Kaiping.

After the battle of the Yalu the Russian army had retreated in good order and finally fell back to Motien Pass and the other passes in that vicinity. The Russian field army in the Liao Tung peninsula had withdrawn to Kaiping.

BATTLE OF WAFANGKOU OR TELISSU.

In the latter part of May, in order to relieve the pressure on Port Arthur, General Kouroptkin sent a strong detachment, under General Stackelberg, from Kaiping toward Wafangku*, partly by rail and partly over the road Kaiping-Fuchou. This force was about 40,000 strong, and, in the early part of June, after a series of skirmishes with the Japanese outposts, its advance detachments had reached a line north of the line Pulantien (or Port Adams)—Pitsewo.

This line was gradually strengthened, and soon assumed such a threatening aspect that General Oku felt justified in advancing against it with four divisions and a large force of artillery.

The outposts of the two armies came in contact on June 12, at Wafangtien, on the west side of the railroad, about 10 miles south of Wafangku. The Japanese advanced partly along the railroad, partly in the valley of the Fuchou River from west to east, with a third column to the east of the railroad in the valley of the Shaho, the upper part of which runs parallel to the railroad. On the afternoon of June 14 the Japanese opened a heavy artillery fire on the Russian position, which was across the railroad some distance south of Wafangku. On account of the Japanese superiority the Russian position was retired northward, about four miles south of Wafangku, to the vicinity of Telissu.

On the approach of darkness the fighting ceased, but during the night the Japanese brought their artillery up on the heights commanding the Russian position from the west and east.

On the morning of the 15th the battle opened again and continued all day. General Stackelberg attempted to push forward his right wing, but found the Japanese left too strong there, and was forced to put in his entire reserve to properly extend his line to meet the Japanese outflanking maneuver. The Russian left wing was at first more successful, and the Japanese were compelled to reinforce their right, but the Japanese cavalry succeeded in executing a turning movement against the Russian left, thus compelling General Stack-

*The point where the railroad crosses the Fuchon river.

elberg to retire to a position north of Wafangku. The difficulties of the terrain prevented the Japanese force from pursuing.

The Russians lost 1,000 men killed and wounded, 800 prisoners and 20 guns; the Japanese lost 8 officers killed, 14 wounded and 900 men killed and wounded.

The object of this movement of the Russian right wing was probably to gain time for Port Arthur as well as for General Kouropatkin.

The Russians retired to Siungyoucheng (20 miles southwest of Kaichou or Kaiping), followed by the Japanese, who occupied that town on June 21.

A few days after the battle of Wafangku the rainy season began and rendered operations very difficult. Oku's army advanced toward Kaiping, and on June 23 began the actions around that town for the possession of the mountain passes. This army, constituting the left wing of the Japanese line, moved on the main road to Yingkau (the port of Newchwang), its first objective, purposing then to turn eastward toward Liauyang.

GENERAL SITUATION.

Meanwhile, the Japanese army under Kuroki, reinforced by the troops landed at Takushan, advanced in a northerly and westerly direction. Outpost actions took place along the entire line of the extended Japanese front, but the main object of the advance was not an offensive movement, but merely to secure strategic points in front and fortify them. On the right, troops were pushed out from General Kuroki's headquarters, as well as from Kuantiensien (or Kuantien*), to Saimatse, where the entire 12th Division was finally concentrated.

On May 29th a skirmish took place at Aiyang (or Aiyangjamon), north of Kuantiensien, and on the 30th the Japanese advanced to Shauko (10 miles northwest of Kuantiensien), where a severe engagement, lasting late into the night, took place. The Russians retired through the Chanlin Pass, to the northwest, and thus prevented immediate pursuit. The Japanese followed on the succeeding day, driving the Cossacks before them toward Saimatse. Here a series of actions took place with varying success, until the Japanese finally took possession of the place on June 7, and began fortifying it.

*About 45 miles northeast of Fen-wang-cheng.

Saimatse, situated on the Pataho (or Patau) River, on a road leading over the Paliling Pass to Liauyang, is well protected by passes in its front, and is consequently a strong defensive position. The Japanese outposts were pushed out to Motien Pass (about 20 miles west of Saimatse).

On the left flank the 10th Division (Takushan subdivision of the IV. Army) took Siuyan* on June 7, forcing the Russians back, the latter retiring on Kaiping, while the Japanese fortified Siuyan. The advance of this flank was necessitated by the fact that the constantly increasing strength of the Russian army would enable the Russian commander-in-chief to send stronger and stronger detachments southward, and only by the occupation of the line Siuyan-Kaiping could this be entirely prevented.

The Takushan subdivision was a portion of the IV. Army, under General Nodzu, composed of the 10th, 6th and 9th Divisions, which had been landed at Takushan, part of which had been sent to reinforce the army besieging Port Arthur, while the rest, including the 10th Division, had been sent forward to strengthen the left of Kuroki's line. This subdivision was designed to advance on the road from Siuyen westward and then northwestward toward Tashikou, or Chakou (30 miles west of Siuyen), over the Chipaulin Pass.

At the beginning of June Marquis Oyama was appointed Vice-Regent and commander-in-chief in Manchuria.

In the early part of June the IV. Siberian Army Corps, 48,000 strong, was at Liauyang. The V. and VI. Siberian Army Corps were ordered mobilized, and on June 6th the I. Army Corps, under General von Meyendorff, was mobilized.

A field railroad from Anju, at the mouth of the Yalu, to Feng-wang-cheng, has been completed.

On June 7 a squadron of nine ships (probably a part of Admiral Togo's fleet) appeared off Kaiping and bombarded the coast. Boats were lowered to search for torpedoes. This appears to have been merely a demonstration.

The operations of clearing the Bay of Talienwan of torpedoes were continued, 41 mines having been discovered and exploded between June 3d and 6th.

On June 11 Yingkou (the port of Newchwang) was abandoned by the Russians, and the Japanese blockaded all the harbors and landing places in the Gulf of Liatung, including the harbor of Newchwang.

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*Called also *Sinkan.*

Toward the middle of June the I. Japanese Army and the Takushan Subdivision advanced against the mountain crest of the Fengshuiling range, and in such wise that all the passes were struck simultaneously. Without serious resistance the advance guards obtained possession of all the passes, between the 25th and 29th of June, including:

Paliling Pass, on the Saimatsi-Liauyang road (12 miles northwest of Saimatsi);

Fengchuiling Pass,*
Motien Pass,†
Moduling Pass,‡
} On the road from Feng-wang-cheng to Liauyang;

Watseling Pass, on the Feng-wang-cheng-Simutchen-Haicheng road (about 50 miles northwest of Feng-wang-cheng);

Fengchullin Pass, on the Feng-wang-cheng-Kautsiapua-Liauyang road;

Daling Pass, on the Siuyen-Haicheng road (about 25 miles northwest of Siuyen);

Chipaulin Pass, on the Siuyen-Dashitsao§ road.

The passes were all strengthened by means of field fortifications, and no further advance was attempted till about the middle of July.

On the Russian side, during May, one-half of the 31st and one-half of the 35th Division, as well as the 8th Division of Rifles from Vladivostok, were drawn to Southern Manchuria, and at the end of that month the IV. Siberian Army Corps, composed of the 2d and 3d Siberian Reserve Divisions, was advanced to Kaichou (Kaiping).

In Saimatsi and Aiyangjamar, on the extreme right of the Japanese line, constant skirmishes took place.

The beginning of the rainy season had rendered the roads almost impassable, especially in the passes. The advance was consequently very slow.

On the left flank of the Japanese line the army of General Oku, to the west of the railroad, found itself on a good road to Liauyang. The Russian army was therefore compelled to change its front, which originally faced southeast, so as to withdraw its right flank and face it westward.

The general situation on the 1st of July was as follows:

The Russian line extended from north of Yingkou (the port of

*About 15 miles northwest of Saimatsi.

†About 25 miles west of Saimatsi. ‡About 30 miles west of Saimatsi.

§On the railroad half way between Kaiping and Haicheng.

Newchwang), on the right, to north of Paliling Pass, on the left. The I. Army Corps north of Yingkou, the IV. Siberian Army Corps north of Kaichou, the II. Army Corps northwest of Daling Pass, southeast of Haicheng, the III. Army Corps north of Moduling Pass; covered in front and on the flanks by the cavalry: the Siberian Cossack Division northwest of the Fengchullin Pass, the Rennenkampf Cossack Division north of the Paliling Pass.

The Japanese line extended from Siungyoucheng (20 miles southwest of Kaiping) on the left to Saimatsi on the right, the II. Army north of Siungyoucheng, the Takushan Subdivision between Chipaulin and Watseling Passes, the I. Army between Watseling and Fengchuiling Passes, the cavalry near Siungyoucheng.

The concentric advance of the Japanese forces came to a standstill at this position, but some slight movements took place, and there were numerous smaller actions along the line.

On the 27th of June the Takushan Subdivision occupied Fengchulling, northwest of Siuyen. On July 9th General Oku's troops occupied Kaiping (Kaichou). The northern column of the I. Army (Kuroki's) advanced about 13 miles westward, and the other two columns of this same army occupied the Lanholing and Siakaoling Passes (north of Moduling Pass), and entrenched there.

The total strength of the Russian field army immediately under General Kuropatkin's command, was at this time (July 1st) about 92,000 men, with 268 guns.

In the early part of June the total forces on the Russian side, including the garrison of Port Arthur, numbered about 154,850 men with 386 guns. The Siberian troops moving toward the seat of war increased their strength to 190,550 men, with 450 guns, and the forces mobilized in Europe raised it to 248,450 men, with 638 guns.

The total strength of the Japanese army at this time (July 1st) was about 226,500 men, with 780 guns.

THE SIEGE OF PORT ARTHUR.

The landing of Japanese troops at Pitzewo, as previously stated, was unopposed by the Russians, but the latter made a serious stand at Kinchou and Nashan heights on May 26. After the occupation of Dalny the Japanese established outposts entirely across the peninsula, a little in front of the railroad center at Sanshilipu, remaining in this position till the middle of June. During this interval the II Army under General Oku was relieved by the III under Nogi. Talienwan

Bay was cleared of mines, especially the entrance channel to Dalny, and the latter became the principal landing place for troops and was organized as a siege artillery depot.

About the middle of June the outposts had been advanced to a line extending from Yinkantsi Bay (12 miles north of Port Arthur) on the north to Sikou Bay (7 miles east of Port Arthur) on the south, the length of the line being about 15 miles. The advance of this line was accompanied and supported by coast defense vessels and torpedo boats, to flank any positions the Russians might take up. The latter also had torpedo boats stationed along the coast to observe the advancing army of the besiegers. The main body of the Japanese forces was at Sanchilipu (junction to Dalny) and at Dalny.

The garrison of the fortress did not oppose the Japanese advance to this position, but merely occupied a position on the Tsiashan Heights (about 5 miles north of Port Arthur), and on those bordering the eastern bank of the upper Lungwangho River (about 6 miles northeast of Port Arthur).

On June 26th the besiegers advanced to attack the Russian position in three columns on the two main roads leading to Port Arthur, one from Sanchilipu (where the railroad branches off to Dalny) by the north of the peninsula, the other from Dalny through the center of the peninsula, and by the south shore road, the last-mentioned being accompanied by torpedo boats on the coast. In spite of the flank fire of these torpedo boats the attack of the left column was successfully resisted, but the center column succeeded in advancing so far that the Russian right was taken in flank and was compelled to retreat to the right bank of the Lungwangho, the Japanese occupying the left bank.

On the 3d and 4th of July the Russians, assisted by their warships, took the heights on the left bank of the Lungwangho again, and held them till the end of the month.

Meanwhile, the Japanese were landing siege guns and reinforcements at Dalny.

The blockade of the southern end of Liaotung Peninsula had become an important element, its purpose being not only to secure the transportation of reinforcements, guns and material to the besiegers, to protect the flanks of the line of attack, and to cut Port Arthur off from all communication, but above all to prevent the Russian warships from escaping to sea. The main purpose of the siege, indeed, was to destroy the Russian squadron, and prevent it from combining with reinforcements from the Baltic or Black Sea, which would enable it

to endanger the Japanese control of the sea, and place the outcome of the entire campaign in jeopardy.

The blockade was conducted by Admiral Togo, who organized his fleet as follows;

I SQUADRON (ADMIRAL TOGO).

Despatch Boat Yayeyama.

1st Division.—Battleships Mikasa (flag), Asahi, Fuji, Shikishima. Armored Cruisers Nishin and Kassuga.

3d Division.—Armored Cruisers Yakumo and Asama. Cruisers Chitose, Takasago, Kasagi and Akashi.

With five Divisions of Destroyers (two to four boats to a Division).

III SQUADRON (VICE ADMIRAL KATAOKA).

5th Division.—Chin Yen, Matsushima, Itsukushima, Hashidate.

6th Division.—Idzuni (flag), Akusishima, Chiyoda, Suma.

7th Division.—Fuso, Hei Yen, Sei Yen, Zukushi, Akagi, Chokai, Oshima, Maya, Uyi.

With five Divisions of Torpedo Boats (five boats to a Division).

A base of operations had been established on the Elliot Islands (70 nautical miles from Port Arthur, 50 from Dalny and 15 from Pitzewo).

The I Squadron guarded Port Arthur itself, while the III patrolled the east and west coast of the Liantung Peninsula, and convoyed the transports. But the gunboats of the latter squadron were often utilized in undertakings against the Port Arthur roads.

The entrance of Port Arthur was guarded by cruisers by day and by torpedo boats at night. To keep the fortress in agitation gunboats and torpedo boats were sent at short intervals toward the entrance to Port Arthur to reconnoiter, to lay mines, or to keep the lighter vessels of the Russians in check, and to prevent attempts against the landing places or the base of operations.

But the fog often prevented a close blockade, and many junks went out with despatches or came in with supplies.

OPERATIONS AT SEA.

On May 30th four Japanese gunboats and four torpedo boats undertook a forced reconnaissance against the outer roads at Port Arthur. New fortifications and search-lights were discovered on

Liautishan. On June 6th the cruiser Chitose noticed a wireless telegraph station on the heights of Liautishan. On June 14th a small recontre took place at Siao-ping-tau (on the east coast, half way between Port Arthur and Dalny), where several Japanese torpedo boats making a coast reconnaissance, or assisting the troops to make one, fired on some Russian troops. The Novik, with ten destroyers, ran out and drove them away.

RAID OF THE VLADIVOSTOK SQUADRON.

In the early part of June the Vladivostok squadron started out under Rear Admiral Besobrasoff, on a raid to attack the Japanese transports. On June 15th this squadron encountered the transports Idzumi Maru, the Hitachi Maru and the Sado Maru, in the Straits of Corea, and sank them, as well as two sailing vessels, off Tsushima (the island between Korea and Japan) near the Japanese coast.

The Japanese sent two squadrons in pursuit of the Russian squadron, namely, Kamimura's and a torpedo flotilla under Admiral Trunoda, but they failed to overtake the Russians, who returned unmolested to Vladivostok. Since Admiral Kamimura returned to his base on June 19, it is evident that the Japanese at this time did not have a sufficient number of warships available for the blockade of Vladivostok.

The raid of Admiral Besobrasoff was in the nature of an attack on communications. The Hitachi Maru was loaded with troops, as was also the Idzumi Maru, while the Sado Maru was loaded with railway material, horses and coolies. The last-named was torpedoed and beached in order to save her cargo. The two sailing vessels were sunk off Iki Island (on the Japanese coast opposite Tsushima).

The Japanese steamers Allanton, loaded with coal, and Cheltenham (6,000 tons), loaded with railroad material, were also captured in the Straits of Corea and sent to Vladivostok, where they arrived about July 4.

The Russian cruiser Bogatyr had been raised and brought into dock at Vladivostok.

ATTEMPT OF THE PORT ARTHUR SQUADRON TO ESCAPE TO SEA.

The Russians succeeded in repairing the Cesarovitch, Retvisan and Pobeida, and rendering them seaworthy again, consequently Admiral Witthoeft had six battleships available, namely, the three just men-

tioned, the Poltava, the Sevastopol and the Peresviet, besides three large cruisers, the Pallada, Diana and Askold, the small cruiser Novik and about 13 torpedo boats.

He therefore determined to run the blockade and escape to sea, if possible.

On the evening of June 22d, Japanese torpedo boats laid mines in the outer roads, but were driven away. At 8 A. M. the Russian squadron began to move out, and by 11 A. M., June 23d, the ships were all assembled in the outer roads. There they anchored, while torpedo boats, small boats, and other small vessels cleared a channel of mines.

In the afternoon the squadron weighed anchor and steamed in column out to sea, the cruisers and torpedo boats distributed along the head and flanks of the column.

Admiral Togo had received notice by the wireless telegraph station installed on one of his cruisers in observation in front of Port Arthur, as soon as the Russian vessels began to leave the inner harbor. His warships began to assemble, according to a preconcerted signal, at the rendezvous, which was not visible from the Port Arthur roads.

As soon as Admiral Witthoeft, after leaving the coast, stood out to sea, heading southeast, he sighted the Japanese fleet on his port side, and noticed that they were heading across his course to take his ships under fire. The Japanese squadron consisted of 4 battleships, 4 armored cruisers, a number of small cruisers and about 20 torpedo boats. The Russian Admiral considered this force superior to his own, and he therefore went about and steamed back for the roads of Port Arthur. The Japanese squadron also changed course eight points, so as to form line, and to strike the Russians, but the distance was too great, and at sunset Admiral Togo changed course again eight points, bringing his ships into column heading for Port Arthur. He then ordered his torpedo boats to attack. The leading boats reached the rear of the Russian column about 9:30 P. M. An hour later Admiral Witthoeft anchored, and from that time on the Japanese made eight successive attacks at short intervals, but it was bright moonlight, consequently they fought at a disadvantage.

Apparently no serious damage was inflicted on the Russian fleet.

Admiral Witthoeft's purpose in this maneuver is difficult to fathom, but it appears that he attempted to escape with the fleet, but was not prepared to fight.

The fact that the blockade of Port Arthur is not effective has been illustrated by a number of incidents. On June 29th, for example, the torpedo boat Lieutenant Buriakoff, coming from Port Arthur,

entered Newchwang, leaving again the following day, and returning to Port Arthur on July 3.

On July 3, the Japanese torpedo boats attempted to approach the harbor entrance of Port Arthur, but were detected by the shore batteries, and two were sunk.

On July 5, the Japanese gunboat Kaimon ran on mine near Talienwan and sank.

THE RUSSIAN VOLUNTEER SQUADRON.

On July 4 and 5, the Russian Volunteer Fleet, comprising the Smolensk, Petersburg and Orel, passed the Dardanelles and steamed for Port Said.

These vessels entered the Red Sea in order to examine neutral vessels for contraband of war.

THE DEFENCES OF PORT ARTHUR.

The forts around Port Arthur are divided into two principal groups, those of the sea front and those of the land front.

Sea Front.

The sea front comprises ten forts.

Beginning at the city and going east from Golden Hill there are four forts, named in order, Huanchinshan, Mochuchiao, Santienwoi, and Laolitsoi, the last about two and one-half miles from the center of the city. The first has three batteries, one above the other, with a total of 23 heavy guns; the second, 2 batteries, one above the other, with 4 heavy guns in all; the third has 9 guns, and the fourth has 2 batteries, one above the other, with 7 guns in the lower battery.

Beginning again across the harbor entrance from the Golden Hill (on the Tiger Tail) and going southwest, there are six forts: Yih-Yuan, with 6 guns, Wantsuyin, 5 guns, Chinkwaushan, of two batteries with 12 guns, Mantooshan, two batteries with 7 guns, Changtooshan, 5 guns, and Liantishan, armed with naval guns. The first five are on the island, Changtooshan at its southern end, about 4 miles from Port Arthur, while Liantishan is isolated on a height of over a thousand feet, about 6 miles southwest of Port Arthur.

Land Front.

The land front also comprises ten forts. The eastern front begins at the most eastern of the sea forts, Laolitsoi, two and one-half miles east of the center of the city, and consists of three forts: Paiyinshan,

3 batteries in line with 15 guns; Chikaushan (or Kikanshan), just beyond the Dalny road, of 2 batteries with 6 guns and several quick firers; and Erlingshan, just east of the railroad, about 2 miles north of the city, consisting of a main battery with 6 guns, and four advanced batteries with quick firers and field guns.

The north front, beginning at Erlingshan, has 5 forts: the Kuropatkin battery, just west of the railroad, about 3 miles from the railroad station in the city; Shanshushan, 2 batteries (one with 4 guns), close to the city, just east of the railroad, and 1 mile directly north of the railroad station; Hanlungshan, adjoining this fort; Yihtsushan (or Wangtai), 2 batteries, about 2 miles northwest of the station; and Antseshan (or Andzushan), 3 batteries, about 4 miles northwest of the city. The two last forts have a total of 20 guns.

The west front has 2 forts: Yanpihshan and Yahootsoi, with a total of ten heavy guns and a number of field guns.

Near Changtooshan there are also two field gun forts, six miles west of Port Arthur there are two similar forts covering Pigeon Bay, and on the shore of Laotishan Promontory there is another such battery.

The city is thus entirely surrounded, on sea and land fronts, by a girdle of forts, and none of the sea forts can be taken from the land side until the land forts have fallen.

The entire line contains at least twenty-six 11-inch guns, twenty-two 10.6-inch guns, fifteen 9.5-inch guns, twenty-two 6-inch guns, and forty-four 4.7-inch guns, besides a great number of field guns and rapid-firers.

THE STRATEGY AND TACTICS OF THE WAR.

A review of the strategy of the war presents, in the first place, the great necessity (for over-sea operations) of *command of the sea,* the ruling factor of this campaign.

Both nations had fairly powerful fleets in the Far East, but the Japanese fleet had but a poor chance of expansion during the war, while the Russian fleet had a possibility of considerable reinforcement from European Russia.

The Russian fleet in the Far East would, therefore, have accomplished much had it destroyed the Japanese fleet, even at the sacrifice of all its own ships, and this was its paramount duty. The Russian fleet from the Baltic and Black Seas could then have established command of the sea and changed the entire course of the campaign.

The Russian fleet in being at Port Arthur was, however, a constant menace to the Japanese transports and justified the energies devoted to the capture of that place. Moreover, should the Russians retain it, it would be invaluable to them as a naval base for the fleet from the Baltic.

The Japanese command of the sea, essential as it was to the success of their plans, was secured in a masterly way, and retained effectively throughout the war.

It enabled them to take the offensive, it caused the Russians to scatter their forces because they could not tell where the first landing was to take place, and it enabled Kuroki to land an army at Chinampo, to seize Seoul, and to march on the Yalu, his left flank resting on the sea, moving his base forward as the army advanced. This command of the sea also enabled the Japanese to flank the Russian positions, so long as the latter were near the coast, and facilitated the siege of Port Arthur by enabling the army for the reduction of that place to land near it.

On land, the strategy of the Japanese has been equally strong and effective. The advance to the Yalu was conducted with consummate skill, and the capture of that defensive line was effected without serious loss. The isolation of Port Arthur was also a strategic movement of a high order.

Kouropatkin, realizing that he was not strong enough to prevent the landing of the Japanese in the vicinity of Port Arthur, withdrew to Kaiping the field army in the Liaotung peninsula, and decided to withdraw to Mukden, until the strategic deployment of the Russian army could be completed, but he was overruled by higher authority, and compelled to make a demonstration in the direction of Port Arthur.

The defeats at Kinchou, May 26, 1904, and at Wafengku, June 16, 1904, forced the Russians to retire. Kouropatkin, still against his own judgment, made a stand at Liaoyang.

The advance of Kuroki's army from the Yalu was again strategically sound, with the center at Feng-Weng-Cheng, his right at Siamatse, and his left at Sinyen, he made a simultaneous attack on all the mountain passes, and so secured the position. All the important defiles were taken with but feeble resistance, and their capture at once enabled the Japanese to move their forces under the screen of the mountains, thus leaving the Russians continually in doubt as to the real point of attack.

As regards tactics, this is the first time in modern warfare that

the European and the Asiatic have met on equal conditions, with modern weapons and using modern methods.

The Japanese soldiers have, however, been trained according to European systems.

The main points of interest thus far have been the advance of the Japanese under heavy rifle fire, the bayonet charges, and the handling of the field artillery. The advance under fire has exceeded all previous records, and surprised the tacticians. The bayonet charges have also been a surprise. The artillery has taken but one, or at most two, positions during a battle, and often did its most effective work by indirect firing, but, of course, the *effect* of the fire could always be observed.

In the case of Port Arthur, the great importance of *land* defences for coast forts is apparent. None of the coast forts there could be taken from the land side without first capturing the girdle of land forts. Port Arthur and the *fleet in being* harbored there, would have fallen an easy prey to the Japanese had it not been protected by fortifications on the land side.

These land forts, as well as the sea forts, are armed with many batteries of rapid fire guns, the importance of which is apparent. Had they been more numerous on the sea side the numerous torpedo boat attacks could not have taken place; and on the land side they are essential to repel attack by troops.

These are the important strategical and tactical principles illustrated by the war thus far, in addition to those previously mentioned.

(*To be Continued.*)

EARLY DAYS OF NAVAL ACADEMY.

The splendor and magnificence of the elegant buildings of the new Naval Academy, as they arise in their grandeur, unity and beautiful architecture, increase public interest in the early days of the institution, when it was known by the modest name of "the Naval School" and numbered scarcely fifty pupils. The institution opened October 10, 1845, and there are some who remember its beginnings. One of these—a venerable lady—when asked what the people thought of the Naval School when it came to Annapolis, replied that: "They thought some little naval school had come here." A gentlemen, once on the Supreme Bench of Maryland, said recently that "if anybody had suggested at its establishment the present vastness of the Naval Academy, he would have been thought a dreamer."

It is not uninteresting to note that one suggestion for a site of the school, at is inauguration, was a lonely island where the contaminations and allurements of the rest of mankind would not assail the midshipmen. It is an agreeable picture of the early days of the Naval Academy that the late Commodore William Nicholson Jeffers, U. S. N., gives in some very graphically written letters addressed to a near relative. He was a midshipman of the first class that entered the Naval Academy. These letters are dated from the "Polytechnic School," Annapolis, which seems to have been one of the titles of the new naval establishment.

The quarters of the Midshipmen at that time were divided into three distinct groups—exceedingly modest—one story buildings that extended from Fort Severn, northwest along the line of Stribling Row. Each building had its distinctive appellation. One was Newstead Abbey, because one Byron lived in it. The other two had titles that need no marginal notes of explanation. They, from the characteristics of their occupants, were designated, respectively, as "Apollo Row" and "Rowdy Row."

The first letter is dated 3 Apollo Row, October 10, 1845, in which Midshipman Jeffers says:

"To-morrow we commence our arduous performances. Thus far twenty-seven Midshipmen have already appeared. These embrace all, but one of these who have attained the best reputation in the service, and are candidates for the second examination. This morning all the officers met when Captain Buchanan made us a speech, short,

but to the purpose, and read us a letter from the Secretary of the Navy. To-morrow at ten the professors give us our books and programme of studies. We have many inconveniences, but, as Captain Buchanan said: 'Gentlemen, there was but a small fund to draw upon (the contingent), as Congress has made no appropriation; but, rest assured, I have done all, and shall do all I can, for your comfort; but, if everything is not for your satisfaction, don't growl. I hate a growl.' All of which is very fair. We have to buy all our own furniture except the iron bedstead, coal and candles, which succeeding Mids will not have to do."

Midshipman Jeffers, at this time, was twenty-one years old.

The second letter was under date of October 27, 1845. In it Midshipman Jeffers writes:

"Now for the catalogue of studies. At present we are divided into two sections, alphabetically, which is to continue until the professors become acquainted with our relative merits. At eight we breakfast. From nine to ten, first section, A to M, recites in mathematics in one hall; ten to eleven in natural philosophy, in the other; the second section reversing the recitation. From eleven to twelve both sections recite together in Gunnery or Chemistry, hear lectures on various subjects, of which we take notes, and are questioned, each subject having its own days. At one we dine; and, heretofore, I've recited in French at three; but, having been promoted to a higher class, I now recite at four. The above arrangements, we and the professors conceive, to be improper, as continued strain on the mind, of three entirely different subjects, in rapid succession, is injurious, while the great part of the afternoon is wasted. Of course we study our French before the recitation, which lasts one hour, and the time, from it until supper, is usually spent in football, fencing, boxing, or in taking walks with some of the ladies in and out of the Fort (Fort Severn). Our lights are put out at ten thirty, so that we have plenty of time to study. To give you an idea of the manner in which we have been driven through—we have finished to-day (seventeen days since school opened)—Brewster's Optics, a book of 400 pages—a complete treatise on the subject."

The recipient of these interesting letters was Miss Anne Hampton Brewster, a cousin of the writer, and a sister of the Hon. Benjamin Harris Brewster, of Philadelphia.

Continuing his letter of the 27th of October, Midshipman Jeffers says:

"The French teacher is a nonpareil. Think of Midshipmen as ig-

norant of French as babes, answering a question, in that language, after ten lessons, yet I have seen and heard it, pronunciation we say nothing about. His name is Girault. (Prof. Joseph Girault—still remembered by many citizens of Annapolis.)

"Fort Severn is a very pretty spot at the mouth of the Severn river, and contains within its walls (in addition to our quarters and recitation rooms), a house for the Commandant, and a row of four houses for the professors, all of whom are married. Prof. Lockwood, with whom I have sailed, was married, and came to Annapolis the same day that I did. With the others, marriage is an old affair. Mrs. Buchanan arrived yesterday, and is to have some three or four pretty cousins and nieces to spend the winter with her, and, I understand, that all the female relatives of all the families resident in Annapolis are to make a descent in a body for the express purpose of leading captive us poor reefers. For my part I have made the acquaintance of several ladies who have arrived at an age above the affectation and humbug of 'sweet sixteen.' I hope I shall be a favorite, having gained the good will of the old ladies, as a preparatory step."

Under date of November 9, 1845, the same correspondent writes:

"It is now snowing a December storm, and has been since morning; nevertheless, I went to church. Mr. Van Duzen preached from Proverbs 11, 24, one of the best sermons I ever heard. (Mr. Van Duzen was the rector of St. Anne's Protestant Episcopal Church, Annapolis.)

"Last evening I visited Mrs. Buchanan, by invitation, I found a small party assembled. I had a long conversation with Captain Buchanan. He gives it, as his opinion, that war must inevitably ensue, directly after Congress takes up the Oregon question; and from his intimacy with the Secretary and all 'the powers that be' at Washington, that opinion is entitled to great credit. Neither party can recede, and, from the great preparations now making, England does not appear to wish to do so. The magnitude of the military and naval armaments, now in progress, have never been exceeded, in any part of her career, as she justly considers it, the most important period of her history. Some one has justly remarked 'that it is often necessary for nations to war for the purpose of maintaining that prestige that, in itself, is half a victory.' Should England, on this occasion, recede, what an immensity of blood and treasure she would have to expend to again obtain it. Yet what can she obtain by war? Nothing that I can see, unless I can, in the meanwhile, should fortune favor, obtain my highest wish—a command.

"While conversing upon this subject we both became excited, and it was not until the smiles of some of the company recalled us both from our dreams of ambition."

Although the slogan in America was, at that time, "Fifty-four forty or fight," the Oregon boundary question, that Captain Buchanan though must end in war, was settled by treaty and the United States did not make good its claim to the parallel of latitude that made that memorable political battle-cry.

Under date of February 3, 1846, Midshipman Jeffers says:

"For the past week there has been a succession of gayeties—a party every evening—which wound up with a ball, which passed off splendidly. Some seven hundred persons were present, and not one of them dissatisfied. The last party of ladies left the ball-room at a quarter past five, and the managers had a supper afterward, which kept us up till seven. The Governor's annual ball enlivened the old capital also. I really enjoyed myself at but one of the parties.

"There is a Mrs. R—— here, the daughter of the celebrated William W——, who plays exquisitely on the harp. Her execution is splendid. I could listen to her for hours, and she is kind enough to play for me whenever I call upon her. I enjoyed myself extremely at a soiree musicale given by her. One of the professors plays well on the piano, and a Pole,* attached to the Coast Survey, plays and sings. Miss Julia Aulick, a daughter of Captain Aulick, of the Washington Navy Yard, has been here. She sings beautifully."

These letters, from which these extracts are made, are in possession of the venerable widow of Commodore Jeffers, now in her seventy-seventh year, and who resides in the city of Annapolis, the scene of the entertaining incidents described in the correspondence.

Under the influence of the opening spring, on April 27, 1846, Midshipman Jeffers wrote:

"This is a glorious day. The green before our door (the old and lower parade grounds) is studded with peach trees in full bloom, and the garden beyond is full of various other fruit trees, and most beautiful flowers just opening. Such days as this are peculiarly welcome, shut in, as we are, and studying so hard.

"I have begun to like to study, and, on the first of the month our general averages were promulgated with the relative value given to each branch. Ten is the highest mark, so that to make ten in any branch, every recitation must be perfect. I stand No. 3 in general

*This was a misnomer. The gentleman at whom allusion is made was an Austrian—Count de Palmsteen.)

average. (He graduated No. 4 in a class of 47 members.) In addition to other studies, we exercise twice a week at the great guns. Saturday we fire at a target. Every afternoon we are drilled for a half hour as a Light Infantry Company, and the latest yarn out is that a lot of horses are to be sent here, and we are to be made horse-marines in good earnest. The sloop of war Decatur is now fitting out at Norfolk for our use. She comes here in the course of a couple of weeks, and, in July, we are to go to sea in her as sailors. 'Tis said that we are to go to Madeira. Another rumor is that we are to go to Vera Cruz, pass a short time in the Gulf, and return here by the last of September. Seamanship is, of course, yet to be considered, and where the difference in Academic standing is so slight, that must decide. As far as correct deportment goes, we are all 'A No. 1,' and are sure of the same favorable report in each case. You see you have now a general idea of the position of things here, and can see what are my chances of ultimate success."

Under date of May 10, 1846, the young officer writes:

"I yesterday took an account of my studies, already passed over, in order that I might commence to review them. Hitherto I have been preparing for recitations; now I commence to prepare for examination in dead earnest. The sum total consists of 2,750 pages, part of which is to be read; a part to be studied, making a daily average of fifty pages, independent of the regular studies of the day. I have, therefore, bidden adieu to all my friends without the walls, and, until the fiery ordeal shall have been passed through you must expect no more letters from me."

The result of final examination in this first class had an interesting episode as one of its closing incidents. Richmond Aulick, of Virginia, and Robert Savage, of North Carolina, had identical totals of coefficients in determining their order of scholastic merit. To settle who should go on the roster of the Navy as first, lot was cast, and Aulick won. He was a man of many graces of mind. Not only was he the accomplished officer, but was beside an able linguist and a talented artist. The last of the class, the date of 1840, to die was John W. Bennett, of Sykesville, Maryland, who died June 30, 1902.

Midshipman Jeffers who had in his youth his highest ambition in the desire for a separate command, not only obtained this wish, but had every honor the service could confer. He lived until June, 1868, and died with the rank of Commodore.

Once again in the history of the Naval Academy the interesting incident of a tie occurred between the two leading members of the

graduating class. This was in 1903, when Midshipman Donald Raymond Battles, of Pennsylvania, an appointee at large, and Alexander Hamilton Van Keuren, of Michigan, at the conclusion of the four years' course at the Naval Academy, had each the aggregate mark of 562.12 in a possible of 624. In order to obviate any question of rank, in case the two should, pending the final examination for the whole six years' course, be sent to the same station, Superintendent Brownson recommended to the Navy Department, which recommendation it approved, that, because he had the highest mark in the graduating year Midshipman Battles be placed on the rolls of the Navy ahead of Midshipman Van Keuren, and so the former's name stands to-day.

ELIHU S. RILEY.

WITCHCRAFT.

The writer of this monograph is indebted to Horace P. Chandler, Esq., for the use of "Chandler's Criminal Trials," a work of great erudition, which his father, the late Peleg W. Chandler, published in 1844. The extracts from this work are extremely valuable; indeed, the writer knows of no other work from which he could have taken so much of interest.

THAT mortals may acquire supernatural power by entering into a compact with evil spirits has in all ages and countries been credited by the common people and even by the learned themselves. The practice, though always held in detestation and abhorrence, was not proceeded against as a crime with any extraordinary zeal until 1484, when Pope Innocent VIII. issued a bull directing the inquisitors to be vigilant in searching out and punishing persons guilty of this crime. The mandate of Innocent was enforced by successive bulls of other Popes, and history records the horrors which marked their execution for two centuries and a half. In 1515 five hundred witches were burned at Geneva in the period of three months, and a larger number were executed at other prominent places; and it has been calculated that not less than one hundred thousand victims must have suffered in Germany from the date of Pope Innocent's bull to the final extinction of the prosecutions.

In England the practice of witchcraft was early viewed with singular horror, and the course of legislation and judicial procedure against it was particularly severe. In the reign of Henry VIII. it was declared by law to be felony "to practice or cause to be practised conjuration, enchantment, or sorcery to get money; or to consume any person in his body, members or goods; or to provoke any person to unlawful love; or for the despite of Christ or lucre of money to pull down any cross; or to declare where goods stolen lie."

In the reign of Queen Elizabeth other statutes were made of like and additional import.

During the reign of James I. a law was passed by the Parliament of Great Britain, when Bacon was a member of the House of Commons, to the effect that all persons invoking any evil spirits, or consulting, covenanting with, entertaining, employing, feeding, or rewarding any evil spirits, or taking up dead bodies from their graves to be used in any witchcraft, sorcery, charm, or enchantment, or

killing or otherwise hurting any person by such infernal arts, should suffer death.

It is estimated that thirty thousand persons suffered death in England for suspicion of witchcraft in one hundred and fifty years. In 1665 Sir Matthew Hale, a man universally renowned for the strength of his understanding and the purity of his character, after a long and anxious examination, sentenced two women to die for this offense. In 1716 a Mrs. Hicks and her daughter, nine years of age, were hanged for selling their souls to the devil, and raising a storm by pulling off stockings and making a lather of soap.

The colonists of New England did not pretend to be wiser upon this subject than the rest of Christendom, and had no doubt of the reality of a practice which had received the execration of good men in all ages, which was expressly condemned by the laws of the mother country to the severest of human punishments, and which in their apprehension was clearly recognized in the word of God. But neither in New England, any more than in the old world, was the belief in witchcraft universal, and as early as 1693 the unlettered Boston merchant, Robert Calif, denied the received opinions on this subject, and exposed a delusion which had so long fastened itself on the public mind, in a style of bold and manly inquiry that commanded attention and with a vein of sarcasm that brought upon his head the maledictions of the ministers and a prosecution by Cotton Mather. Witchcraft, Calif contended, was manifestly a work of the flesh. To assert that mortal men could enter into a league with evil spirits for the injury of other men was to make God a party to the compact or to deny His omnipotence. To assert the first was to make Him a liar. The last was blasphemy.

The first suspicion of witchcraft among the English in New England was about the year 1645. At Springfield the delusion prevailed, but no one was convicted until 1650, when a poor wretch, Mary Oliver, after a long examination, was brought to a confession of her guilt, but it does not appear that she was executed. About the same time three persons were executed near Boston, all of whom at their death asserted their innocnce. In 1655 Anne Hibbins, the widow of a magistrate and a man of note in Boston, was tried for witchcraft. The jury found her guilty, but the magistrate refused to accept the verdict. The case was carried up to the general court, where the popular voice prevailed and the prisoner was executed. In 1662, at Hartford, Connecticut, a woman named Greensmith confessed that she had been grossly familiar with a demon, and she was

executed. In 1669 Susanna Martin, of Salisbury, was bound over on suspicion of witchcraft, but escaped, though she suffered death in 1692. In 1671 Elizabeth Knap, who possessed ventriloquial powers, alarmed the people of Groton, but as her demon railed at the minister of the town and other persons of good character the people would not believe him. Her fraud and imposture were soon discovered. In 1694 Philip Smith, a judge of the court, a military officer, and a representative of the town of Hadley, fancied himself under an evil hand, and suspected an old woman, one of his neighbors, as the cause of his sickness. She was dragged from her house by some young men, who hung her up until she was nearly dead, then rolled her in the snow, and at last buried her in it; but she survived all this cruel treatment, and the melancholy man died.

The commencement of what is known as the Salem Witchcraft was in the family of Samuel Parris, the minister of Salem village, now Danvers, in February, 1692. There had been a bitter strife between this man and a portion of his people, and the very active part he took in the prosecutions for witchcraft has been justly attributed not less to motives of revenge than to a blind zeal in the performance of what he considered his duty.

A daughter of Mr. Parris, nine years of age, his niece of less than twelve, and two other girls in the neighborhood began to make complaints similar to those which the Goodwin children had made two or three years before in Boston, though they afterwards returned to their ordinary behavior and made profession of religion, living and dying in the odor of sanctity. This child of Mr. Parris and her companions were pronounced by the attending physician, who could not otherwise account for their disorder, as bewitched.

Several private fasts were kept at the minister's house, and several more public by the whole village, and then a general fast through the colony, to seek God to rebuke Satan.

The great notice taken of the children not only tended to confirm them in their conduct but to draw others into the like. Accordingly the numbers of the sufferers soon increased, and among them were two or three women and some girls old enough for witnesses. These, too, had their fits, and when in them cried out against an old Indian woman, a member of the minister's household, and against Sarah Osburn, a melancholy, distracted old woman, and Sarah Good, another old woman who was bedridden.

The Indian woman was scourged by her master, and at length confessed herself a witch and that the two old women were her con-

federates. And so it went on until about three weeks afterwards two other women of good character and church members, Corey and Nurse, were complained of and brought to an examination, on which these children fell into fits, and the mother of one of them joined with the children and complained of Goody Nurse as tormenting her. The women, notwithstanding they denied everything, were sent to prison; and such was the infatuation that a child of Sarah Good, about four or five years old, was also committed, being charged with biting some of the afflicted, who showed the prints of small teeth on their arms.

It would take a volume to describe the effects of the delusion as written out by our early historians. No wonder that the whole country was in consternation when persons of sober lives and unblemished characters were committed to prison on such flimsy evidence as we have quoted,—evidence that should not entitle a case to be heard in court. Nobody was safe. The whole community was in a state of terror and alarm. The purest life, the strictest integrity, the most solemn asserverations of innocence were of no avail. Husband was torn from wife, parents from children, and in some cases the unhappy victims saw in their accusers their nearest and dearest friends; in one instance a wife and daughter accused the husband and father to save themselves, and in another a daughter seven years old testified against her mother.

But the mystery to us in these modern times is, how the educated men of that day could have looked upon the affair as anything else than a delusion and a snare; how such generally intelligent men as the leading divines in New England, and Judge Samuel Sewall, undoubtedly one of the most worthy men of his generation and author of the famous diary, should have been so blinded as to give this utterly absurd infatuation their countenance.

Matters went on until June, 1692, when the royal governor, Sir William Phips, arrived in Boston. He was a firm believer in witchcraft. The prisons were filled with victims charged with this offence, and, urged on by the seeming exigency of the occasion, he issued his commission, constituting the persons named in it a court to act in and for the counties of Suffolk, Essex, and Middlesex. This court, beyond all question an illegal tribunal, consisted of seven judges, viz.: William Stoughton, the lieutenant governor, chief justice, Jonathan Curwin, John Richards, Bartholomew Gedney, Wait Winthrop, Samuel Sewall, and Peter Sergeant. Stoughton and Sewall had been educated as clergymen; Winthrop and Gedney as physicians;

Richards as a merchant; Sergeant was an influential man in the colony. The court proceeded to business and had its hands full. It received such evidence, and convicted upon it, as nowadays would not serve to hang a cat upon.

The trial of Rev. George Burroughs, a man of ability and education, who was graduated at Cambridge in 1670, was one of the darkest transactions which the annals of crime in this country present. He was convicted and executed on the most absurd, loose, and general evidence that was ever allowed in a court of justice.

Mary Easty, one of the victims of this illegal tribunal, who was hanged with seven others on the twenty-second of September, was a woman of great strength of mind and sweetness of disposition. Her appeal to her judges was one of the most pathetic petitions ever put upon record in Massachusetts. But nothing could or would convince the court that this woman was innocent; her long life of sixty years and her rearing a family of seven children had no weight. Noyes, the minister of Salem, pointing to the bodies hanging on the gallows, said, "There hang eight firebrands of hell."

The court of oyer and terminer never sat again. It was impossible for these atrocities to be longer endured. The common mind of Massachusetts, more wise than those in authority and influence, became concentrated against such monstrous proceedings, and jurors refused to convict while the judicial power was yet unsatisfied with victims. Already twenty persons had suffered death; more than fifty had been tortured or terrified into confession; the jails were full and hundreds were under suspicion.

Where was this to end? Moreover, the frauds and impostures attending these scenes began to be apparent. It was observed that no one of the condemned confessing witchcraft had been hanged; no one who confessed and retracted a confession escaped either hanging or imprisonment for trial. Favoritism had been shown in refusing to listen to accusations which were directed against friends or partisans. Corrupt means had been used to tempt people to become accusers, and accusations began to be made against the most respectable inhabitants of the province and some ministers. Neither were the trials fairly conducted. They were but a form to condemn the accused.

Further details of this horrible delusion seem unnecessary to be written in view of the fact that the end of the evil was fast approaching.

The general court assembled about a fortnight after the last

hanging of eight at Salem; the special court of oyer and terminer was abrogated, and in its stead a new tribunal, which was not to assemble until the next January, was established by public law; and in the interim there would be time for reflection. The statute of James I. against witchcraft was adopted as the law of the province.

Of the causes of this transient delusion which rose so high and terminated so fatally among the sober and goodly people of New England, no definite explanation can at this distance of time be given. When its work was done it properly ceased. Such moral desolations often pass over the face of society; the thunder-storm does its work: the atmosphere becomes clear; the sun shines forth and reveals to all, the work of death.

The change in the public mind was complete and universal. Bitter was the lamentation of the whole community for the sad consequences of their rashness and delusion; contrite the repentance of all who had been actors in the tragedy, with a few exceptions; Parris, the minister who had been the chief agent in these acts of frenzy and folly, was compelled to leave his people; William Stoughton, chief justice of the illegal court, to the day of his death held he had done no wrong. Cotton Mather, the eminent divine of New England, who was responsible in a great measure for the growth of this delusion, bore much odium, for he was a man of eminent abilities and could have nipped this delusion in the bud.

Samuel Sewall, one of the judges who sat in all of these cases, saw the error of his ways. He sent to the pulpit a paper acknowledging his error in the late proceedings, desiring to humble himself in the sight of God and his people. He stood up in his place in the Old South Church in Boston while he read as follows: "Samuel Sewall, sensible of the repeated strokes of God upon himself and family, and being sensible that as to guilt contracted upon the opening of the late commission of oyer and terminer at Salem (to which the order for this day relates) he is upon many accounts more concerned than any that he knows of, desires to take the blame and the shame of it, asking pardon of men and especially desiring prayers that God, who has unlimited authority, would pardon that sin and all other his sins, personal and relative, according to his infinite benignity and sovereignty, and not visit the sin of him or of any other upon himself or any of his, nor upon the land, but that he would powerfully defend him against all temptations to sin for the future, and vouchsafe to him the efficacious, saving conduct of his word and spirit."

The frankness and sincerity of his confession atoned for his

error, and he and his descendants long enjoyed the public favor. This grand stand of Samuel Sewall is one of the few bright spots which illumined New England when the delusion had given place to common sense.

Many years afterwards the general court appointed a committee to make inquiry into the condition and circumstances of individuals and families who might have suffered from the "calamity of 1692." Churches rescinded their votes of censure, and, as the past could not be recalled, the Salem Witchcraft was allowed to die out.

BENJAMIN F. STEVENS.

THE CASE OF CAPTAIN LAWRENCE.

"THE pen is mightier than the sword," also more dangerous. Indeed it is more in the nature of a firearm, since no one ever knows whether or not it is loaded, nor how far it may carry. Moreover, men lose only their lives by the sword, while by the pen they lose their reputations. On June 1st, 1813, James Lawrence lost both his life and his ship, saving his honor whole; yet since that time reckless penmen have fired away at that bright mark until they have well nigh reduced it to "rashness." The defeat, to the superficial observer, seemed humiliating, and the desire to explain it away has led the apologists to magnify the odds against Lawrence until they have bereft him of every vestige of proper prudence. Washington Irving began the mischief, with the best intentions in the world. Soon after Lawrence's death, he wrote his biographical sketch, basing it seemingly upon newspaper reports and contemporary gossip. Among other statements, for instance, he said that Commodore Bainbridge had advised Lawrence not to risk the encounter. As soon as he saw this in print, Bainbridge wrote to the author a somewhat peremptory denial, stating that he had not seen Lawrence for several days before the action. Irving, as a gentleman should, published with the next edition a correction and apology, explaining at the same time that he had had no intention of implying any criticism of Lawrence for accepting battle. Yet numbers of writers since then have consulted either the erroneous first edition, or have read the sketch without reading the apology and have transmitted and enlarged upon the error, to show that Lawrence, besides other wrongdoing, acted against the advice of his seniors. As Gleaves says, they "accuse him of the folly of Rehoboam." It is an excellent instance of the range and effect of a random penshot. Most of the later accounts of the Chesapeake-Shannon action have been similarly drawn, and sometimes copied verbatim untrammeled by quotation marks, from Irving and other contemporary sources, and form part of more or less comprehensive histories the authors whereof have not spared time from the larger work to thoroughly collect and digest all the evidence as to

this one incident. The mistakes have been passed along also by those most reckless of all disseminators of error, the "historical novelists."*

Now at last, however, the biography of Lawrence has been written fully, fairly and by an officer of his own service, capable of understanding clearly, criticising sympathetically, and judging justly. And it is in the nick of time that Lieutenant-Commander Gleaves has come to the rescue, for the case has recently been passed upon adversely by no less an authority than Captain Mahan.

It is a bold man who would differ with the great naval commentator, nevertheless it is respectfully submitted that either the attention of the Honorable Court was not called to Gleaves' work (which was published not long before the September Scribner's; and, therefore, presumably, after Mahan's chapter therein was written), or else due deliberation could not be spared to the subject on account of the many other important issues involved in the "War of 1812." The case is well worth careful consideration, however, for apart from its merely historic interest it has an important bearing on the future. The same question is sure to arise hereafter, and the judgment in this case should settle the rule of conduct for officers in similar circumstances.

The accusation against Lawrence can be most fairly tried, by considering it, as Gleaves does, upon each of two counts; first, the charge that he should not have gone out to meet the Shannon; second, that he erred in his method of attack. For an intelligent discussion of the first and more important question, however, a clear understanding of the events of the battle is necessary, therefore it is better to take up the second issue; first, namely: Was Lawrence at fault in his tactics?

The wind was about southwest ("To the southward and westward") and light. The Shannon lay hove to, with her head to the southward and eastward, her headsheets flowing and her maintopsail a-back. Lawrence approached from the west with the wind on the starboard quarter, and steered for the Shannon's stern. Broke's best way to meet such an approach, as Gleaves points out, would have been to go about and stand toward the enemy, close-hauled on the port tack. Why he did not do so, he never explained; he did not have to. He lay instead, as he was, with his ship nearly dead in the water. Under these circumstances, Lawrence had a choice of two courses.

*In this class, the present writer once made his modest contribution of misinformation; but, for reasons unnecessary to mention, so little harm has been done by it that no apology is needed. If it is, then let this article make amends.

He might have held on under the Shannon's stern and raked her, and has generally been blamed for not doing so. He chose instead a broadside to broadside opening, and luffed alongside about fifty yards to windward. The reason generally ascribed to him for this, is that he appreciated that Broke had deliberately exposed himself, was waiting as it were with his sword point down, and therefore he felt bound to show equal courtesy. Gleaves accepts this theory, believing it in such thorough accord with Lawrence's nature; but it seems hardly possible that he would have pushed his chivalry to such an extent, since he had already begun the battle when he entered the lists and must have deemed it compatible with honor and duty to take advantage of every opening after that. A better reason for his action would seem to be this: Had he passed astern of the Shannon he would probably have raked her, but would certainly have lost the weather gauge and stood a very good chance of being raked later on in return. A raking at the outset, expected and prepared for, would not necessarily have beaten the Shannon, nor would it have been worse than diagonal. Broke had cautioned his crew to stand by for it, and by flattening his headsheets could have turned his ship on her heel soon enough at least to present her quarter to the Chesapeake's broadside; after that he would have been in the better position.

On the other hand, by luffing up on the weather side of the Shannon, Lawrence would, and did, forge ahead, and in the ordinary course of events would have been able, after a short broadside engagement, to keep off slowly across her bow and rake her at close quarters from stem to stern with every gun, perhaps even to seize her headbooms and so hold her by the throat. With her broadsails blanketed, the Shannon would have been powerless to save herself by wearing. It would have been a brilliant and absolutely decisive maneuver, and was prevented only by the extraordinary combination of the loss of the Chesapeake's spanker brails, jib sheet and foretopsail tye, added to that of every officer on deck and three men in rapid succession at the wheel; all of which threw her helpless into the wind.

Mahan says: "Just before she closed the Chesapeake rounded to, taking a parallel course and backing the maintopsail to reduce her speed to that of the enemy. Captain Lawrence in his eagerness had made the serious error of coming up under too great headway." The statement that the maintopsail was backed appears in neither of the official reports, but undoubtedly Captain Mahan has good authority for it. If so, it is obvious that Lawrence with cool judg-

ment was gauging the speed of his ship, and taking the proper measures to prevent her from shooting so far ahead that the Shannon might be able to bear away out of his grip, or perhaps luff out across his stern. He meant to hold his ship on the enemy's weather bow, until both were so nearly deadened that he could pay off across the Shannon's bow slowly and without letting her escape. It is respectfully submitted that his seamanship was perfect to accomplish his purpose, and it was better to come up under plenty of headway, and then check it by shivering or backing one or more sails, than to risk total failure and a precarious position by coming up too slowly. In that case the play might have been reversed by the Shannon luffing across his bowsprit instead of his keeping off across hers. As a matter of fact at almost the moment that the Chesapeake came up in the wind on account of the losses above mentioned, she was in just the right position and with just the right headway, or lack of it, to have paid off square across the Shannon's bow, had those losses not occurred. This is shown by the fact that after she came in the wind and gathered sternway her port quarter fouled the Shannon amidships; indeed, Broke tried to keep away and delay the boarding, but was unable to do so because his headsails were becalmed by the Chesapeake.

Gleaves holds that Lawrence, having determined on a broadside to broadside opening, should have chosen a greater distance in order to give his officers and crew more time to face and recover from such casualties as might occur. The soundness of this criticism is manifest, because the casualties *did* occur and proved fatal on account of the ships being so close together. It must be remembered, however, that at close quarters Lawrence more completely blanketed the Shannon, and therefore expected the more quickly and surely to accomplish his object of crossing her bow. He could hardly have been expected to foresee that the enemy's shot would reduce his headsail and increase his aftersail both at once. Moreover, by close action he probably expected to impose upon the enemy the same risks that he assumed himself. Alas, there was no such equality, for just one reason; and here, indeed, is the one point, in the humble opinion of the writer in which Lawrence showed lack of foresight. Possibly he considered this danger also, and determined to risk it for the sake of the advantage to be gained; but more probably it never occurred to him, since it seems to have escaped the hindsight of his critics for ninety years. The peculiar combination of injuries to the Chesapeake's rigging was luck and not due to better gunnery on the part

of the Shannon, as some writers have held, for the ships were so close that every gun counted with every shot, and, as Gleaves has shown, the Chesapeake's counted oftener, while they bore, and were therefore served better. But the fact that every officer on the Chesapeake's spar deck was shot, and three men at the wheel one after another in six minutes, while not a single officer on the Shannon was hit, during the broadside engagement, was not altogether luck. We do not know how all the others were killed, but we do know that Lawrence was struck twice, first by a pistol ball and then by a musket ball, and that Ludlow also was wounded by musketry. This meant that the British marines far excelled ours, who, as a general rule, were conceded to be the best in the world. Why was it that on this occasion the tables were so signally turned? Unquestionably because the Shannon, using her weather battery and being less than fifty yards to leeward of her opponent, was covered by the smoke of both her own guns and those of the Chesapeake, while the decks of the latter ship were unclouded. This was a disadvantage to the Shannon's gunners but an enormous advantage to the small arm men in her tops, who had a clear view of the Chesapeake's deck, while the American marines could see nothing on the Shannon. For this reason, as well, and perhaps more than, for those pointed out by Gleaves, Lawrence should not have engaged at such close range.

After the ship came up in the wind and Lawrence found that she was out of hand, gathering sternway and likely to fall aboard the enemy before she could be filled away, he gave the order to call the boarders. Immediately after this he was wounded the second time and carried below. The position of the ship, of course, exposed her to a diagonal raking fire while she drifted back on the Shannon, and this added to the musketry completely prepared the way for the British assault. What followed is concisely described in Captain Mahan's own words, clear and accurate as usual:

"The negro bugler of the ship, who should have echoed Lawrence's summons (*i. e.* for the boarders), was too frightened to sound a note, and the voices of the aids who shouted the message to the gundeck, were imperfectly heard; but, above all, leaders were wanting. There was not on the upper deck an officer above the grade of midshipman; captain, first lieutenant, master, marine officer, and even the boatswain, had been mortally wounded before the ships touched. The second lieutenant was in charge of the first gun division, at the far end of the deck below, as yet ignorant of how the fight was going, or that the fate of his superiors had put him in com-

mand. Of the remaining lieutenants, also stationed on the gundeck, the fourth had been mortally wounded by the first broadside; while the third, who had heard the shout for boarders, committed the indiscretion, ruinous to his professional reputation, of assisting those who, at the moment the ships came together, were carrying below the wounded captain.

"Before the new commanding officer could get to the spar-deck the ships were in contact. According to the report of Captain Broke, the mizzen channels of the Chesapeake locked in the fore-rigging of the Shannon. When the Chesapeake's second lieutenant reached the forecastle, the British were in possession of the after part of the ship, with the principal hatchways by which the boarders of the after division could come up. He directed the foresail set, to shoot the ship clear, to prevent thus a reinforcement to the enemy already on board; and he rallied a few men, but was himself soon wounded and thrown below. In brief, the fall of their officers and the position of the ship, in irons and being raked, had thrown the crew into the confusion attendant upon all sudden disaster. From this state only the rallying cry of a well-known voice and example can rescue men. 'The enemy,' reported Broke, 'made a desperate but disorderly resistance.' The desperation of brave men is the temper which at times may retrieve such conditions, *but it must be guided and fashioned by a master spirit into something better than disorder, if it is to be effective.*"

It is to be borne in mind also that the ship was in the wind drifting astern for four minutes only, and that five minutes after she fouled, the victors were in complete possession of the spar deck and had hauled down the flag. The foregoing passage from Captain Mahan's chapter is quoted in full and the last words italicized, for the bearing they have upon the charge that Lawrence should not have gone out to fight. That charge we are now in a position to discuss.

The specifications are usually: 1. That the ship was not ready for sea. 2. That the personnel of the crew was bad being composed mainly of landsmen and foreigners, many of whom were actually mutinous. 3. That the officers were young and new to their duties. 4. That the ship's company had not been together long enough to become properly organized and drilled.

The first two of these specifications Gleaves disproves by letters and reports of Lawrence and Ludlow, and by the ship's muster roll. By-the-way, he appears to be the first writer who has ever thought of consulting that document. He shows that there were but fifteen boys, and that every man aboard was rated as an ordinary

seaman at least, about half being rated seamen or higher; also that less than five per cent. of the names were foreign, or at least un-English (like Decatur, Farragut,. or Nelson perhaps). It may be doubted whether the rating of ordinary seamen in those days presupposed sea service. There must have been some landsmen aboard, or at least some who would not rate O. S. to-day, and the fact that no landsmen appear on the muster roll of either the Chesapeake or the Hornet is a fair indication that all hands, not rated seamen or higher, were classified as ordinary seamen except the boys. Nevertheless more than half the crew were seamen; a good part of the rest were surely better than green hands, and ninety-five per cent. were either native Americans or else Irish, English, or Scotch, who, even if deserters, were not the less likely to fight hard on that account. Indeed, this particular accusation might well have been dismissed on its face without proof, for even if true, it would have been no reason for avoiding battle with an enemy of equal force. Should a commander after he has calculated the enemy's metal, proceed to count the landsmen in his own crew and those not born in America?

Mahan rests his condemnation mainly on the last two specifications, namely, that the officers were young and new to their duties. and that the crew lacked organization and drill. Gleaves' answer to both is that neither of these things, whether true or not, affected the result of the action. The officers were all killed or wounded before the ship was taken and all behaved perfectly, with the exception of Cox, the acting third lieutenant. He, poor boy, ruined himself by going below with his wounded captain, instead of taking command of the deck; when he attempted to return it was too late. But is it reasonable to suppose that, backed only by the boarders of his one division (all who had heard the first call) and the few men left on their legs on the spar deck, he could have driven back all the first boarders of the Shannon led by Broke, Falkiner and Watt? The first and second lieutenants, until finally disabled by repeated wounds, proved themselves particularly cool and courageous under desperate circumstances; the fourth, the marine officer and the sailing master were killed almost at the first fire; the boatswain, a veteran of the Constitution, was also killed. Can it be said, even upon retrospective knowledge, that Lawrence ought to have remained in port because one officer proved incompetent?

Nor is there any more weight in the allegation that the crew lacked organization and drill. We know that they handled the sails

well, and we know that they handled the guns well, and that, too, under heavy punishment; whether or not they were well trained to repel boarders we shall never know, for the best drilled and organized crew in the world would have gone to pieces under the test to which that crew was subjected. The ship raked and helpless from the loss of her rigging, every officer on the spar deck killed, the enemy pouring on the quarter deck led by their captain and two lieutenants; those are odds against which no crew in the world could have beaten Broke and his boarders. The loss of the ship was directly due, as Gleaves maintains, and as Mahan himself shows in the passage above quoted, to the loss of officers and the failure of the bugler to sound the call for boarders when the order was first given. It is undoubtedly true that many of the men lost their courage when the ship was boarded, but the wonder is that so many behaved as splendidly as they did. It is a galling thing to be beaten with the cutlass; it is particularly trying to read so much about "British steel;" but truly the greater glory belongs to the leaderless men who, in scattered handfuls and separately, sold their lives like berserkers. And this may be said without detracting in the least from the credit of the victors. The golden opportunity, prepared for them by fortune and their marines, the Shannon's boarders seized promptly and handsomely, and took the ship by fierce fighting from brave men. Less competent officers and less courageous men might have hesitated and lost.

One important point in the case, overlooked by every other writer of prominence, has been pointed out by Mr. Gleaves. *Lawrence was under orders to sail.* Of course, he might have remained in port and written to Washington, "I regret that the Department's orders can not be obeyed." Most naval officers, particularly those of the stamp of Lawrence, do not like to do that, and when they do, must give good reasons for it. What would have been his reasons? That an enemy of equal force was waiting for him in the offing, and that he desired more than the fortnight he had already had to drill his crew for the encounter. Even if such an excuse might have been accepted, Lawrence was not the man to offer it unless forced by absolute necessity. That no such necessity existed was shown by the way the crew behaved while there was any one left to command them. He judged his men ready, and the event not only did not prove his judgment wrong in any particular, but in great measure proved it right. He beat the Shannon at the guns, and came near, oh, so near, the most brilliant victory of the war.

Mahan says, "Except in material force, the Chesapeake was a

ship much inferior to the Shannon, as a regiment newly enlisted is to one that has seen service; and the moment things went seriously wrong she could not retrieve herself. (Bring back the officers to life?) This her captain should have known and to the accusation of his country and his service, that he brought upon them a mortification that endures to this day, the only reply is that he died 'sword in hand.' This covers the errors of the dead, but can not justify the example to the living."

No such accusation was made by any of Lawrence's *contemporaries*. Gleaves truly says in his preface, "It speaks volumes for the deep love that his countrymen bore for Lawrence that it remained unchanged, although his disaster of losing a ship meant a heart-breaking reduction of one-fourth of the frigate strength of the available sea force." With the majority, that affection has continued for ninety years, and, in spite of all the adverse criticism, this beaten commander is nearer to the heart of almost every naval officer and every one interested in the service to-day, than is any victor of the War of 1812. Until Gleaves' book appeared, few perhaps could have given good reasons for the faith that was in them, for they did not know all the facts and had heard but one side of the argument. It was more instinct than reasoning; they felt that Lawrence had done what they would have had him do, what any one of themselves would have done or hoped to do, under similar circumstances. Instead of remaining in port and explaining to a court of inquiry why he did so, he sailed straight out for the enemy and left posterity to explain why he should not have done so. If that be error, then one can not help suspecting that the Navy is honeycombed with it and very likely to accept with considerable pleasure Lieutenant-Commander Gleaves' "justification of the example to the living." At any rate, that work has the endorsement, by way of introduction, of a certain sailor who himself committed a very "rash" act as recently as the 1st day of May, 1898, one George Dewey. It is well to remember how thick the mines and torpedoes were on April 30th.

WALDRON KINTZING POST.

OUR CONTEMPORARIES.

An analysis of the contents of the principal military periodicals, systematically classified under a few general heads for the convenience of the reader and student, comprising extracts and comments, in which special attention is given to the most important and valuable articles.

ORGANIZATION, ADMINISTRATION AND MOBILIZATION.

1. Reorganizing the Indian Army.—*A. and N. Gaz.*, Nov. 26.
2. The Military Needs of the British Empire.—*Same.*
3. The New French Army Service Regulations.—*Same.*
4. The Military System of Japan.—*Natl. Serv. Jour.*, Nov.
5. The Proposed Changes in the Swiss Army.—*Same.*
6. The Command System in India.—*A. and N. Gaz.*, Dec. 10.
7. The Swiss National Militia.—*Ind. Vol. Rec.*, Sept. 30-Nov. 15.
8. Voluntary Enlistment and an Effective Militia.—*Unit Serv. Mag.*, Nov.
9. The Evolution of the Short Service System.—*Same.*
10. A National Ambulance Service.—*Same.*
11. The Squadron System.—*Same.*
12. The Foundation of an Army.—*Jour. Infy.*, Oct.
13. Chinese Troops and Their Instructors.—*Same.*
14. Feeding Troops in Time of War.—*Same.*
15. Pay and Status of Non-Commissioned Officers.—*Jour. M. S. J.*, Nov.-Dec.
16. Martial Law and the Colorado Strikes.—*Same.*
17. Six or Four-Gun Batteries.—*Same.*
18. An Army Service Corps.—*Same*, Jan.-Feb.
19. Von Liebell's Changes in Military Matters.—*Same.*
20. Our Cavalry.—*Jour. Cav.*, Oct.
21. The Squad System.—*Same.*
22. Organization for Military Telegraphing in the Field.—*Same.*
23. The Organization of a Scout and Sharpshooter Corps.—*Jour. Cav.*, Jan.
24. A Reserve Force.—*Same.*
25. Remounts.—*Same.*
26. A Modification of the Detail System.—*Same.*
27. Report of the Secretary of the Navy.—*A. and N. Reg.*, Dec. 10.
28. The National Militia.—*Same.*

29. The Services in the Message.—*Same.*

30. Report of General Wood.—*Same,* Dec. 24; *A. and N. Jour.,* Dec. 24.

31. Changes in the World's Armies and Navies.—*Jour. R. U. S. I.,* Nov.

The *first* of these articles illustrates England's deep interest in India, as well as Lord Kitchener's work there:

"The Indian Army has undergone many changes, and its history is commonly divided into three phases; the first covering the period of its growth and work in many wars, culminating in the convulsion of the Mutiny; the second including its regeneration and reconstruction in the hands of many great soldiers, and the Afghan war; and the third covering the period of general peace, wherein vast strides have been made towards efficiency, and a great work of internal reorganization has gone on. Now, under the energetic impulse given to the Army by Lord Kitchener, it may be said that a new period has begun, in which the Indian Army will be directed to meet the conditions which have arisen from the advance of a great military Power to the further border of Afghanistan.

"Many years may elapse before the redistribution which Lord Kitchener has in view can be brought about. There are racial objections and military traditions to overcome, and a sum estimated at £10,000,000 has to be expended over a period of years upon the construction of barracks and stores, while the rearmament of the Artillery and the reorganization of the transport will meanwhile absorb vast sums of money. Madras is the first command to be greatly affected, for obviously there is not likely to be any call, except for the preservation of peace in the region, upon the descendants of the men who fought under Clive and Wellesley, but who, falling into unmilitary state, have been reinforced in later times in their own territory by many Punjabi regiments. The complete scheme of redistribution is not known, but it must result in strengthening the forces on the northwest frontier and upon the railways which lead to the Sukkur bridge on the Indus, and thence to Quetta and New Chaman, and the various lines which give access from the south-east and south-west to Rawal Pindi, Peshawur, and Dera Imail Khan. The whole frontier beyond the line of the Indus is intimately known to our officers, and it is to make possible a rapid advance on Kabul and Kandahar, and the districts of Northern Afghanistan, that the redistribution of forces will be directed, in view of a possible advance of Russia from Turkestan, where her forces have been strengthened, and where communications

are being improved. The Indian Army is small enough for its great work, as Lord Kitchener has declared, and whatever may be the objections from other points of view, it is therefore sound military policy to place the forces in those positions where they will be most rapidly available in case of need. The purpose is so to train, organize, and locate each brigade in peace time that it may be mobilized rapidly and depart for the front as part of its division and corps with celerity on the outbreak of war. A profound work of reorganization has been initiated, and, admirable as was the Indian Army before, we look with confidence to seeing it attain a higher degree of efficiency still.

"The Secretary of State has approved the scheme submitted by Lord Kitchener for the reorganization of the Indian Army.

"The principle underlying his lordship's proposal is that the Army in India in peace should be organized and trained in units of command similar to those in which it would take the field on mobilization. That being the case, the Secretary of State has endorsed the views of the Government of India that no time should be lost in reorganizing the Indian commands on the lines suggested, and instructions have been issued accordingly. Under the conditions of the new scheme, India, exclusive of Burma, will be divided into three commands, each command comprising three divisions, and each division being made up of one cavalry and three infantry brigades, with divisional troops, composed of cavalry, artillery, sappers, pioneers, etc., together with such additional troops as may be required for the maintenance of internal order in the divisional area when the division itself is withdrawn for service in the field. The adoption of this organization will involve, of course, a considerable redistribution of troops, which cannot be carried out until new barracks and lines have been constructed in various places, which are in future to occupy a more important position, in a military sense, than they have done hitherto. Not until the building programme has been completed will the new organization come into full effect, but it is possible to inaugurate the most pressing changes at once under Lord Kitchener's orders and direction, and this is what it is proposed shall be done."

The *second* article is of considerable interest, as it relates to the grave question of compulsory service which must sooner or later come up for decision before every nation that takes its position as a world power:

"THE MILITARY NEEDS OF THE BRITISH EMPIRE.

"By Lieut.-Col. Alsager Pollock.

"The following series of propositions appears to me to present a

reasonable and fairly comprehensive view of the matter to which it refers; and although the accuracy of some of my assertions may be contested, I venture to believe that in the majority of cases the verdict will be favorable:—

"1. The British Empire is based upon sea power.

"2. The maintenance of an adequate and highly efficient Navy is essential to our national as well as Imperial security.

"3. We are willing to pay all that is necessary for our naval and military defence, but we strongly object to extravagance of any kind.

"4. We desire strict economy, but decline to allow the pursuit of it to involve any sacrifice of efficiency.

"5. Armies can to a certain extent be improvised when wanted, but a Navy is useless unless it is always ready for immediate service.

"6. On the Navy we are prepared to spend whatever sum may be required to ensure complete efficiency, but upon the Army only the balance of the total amount that we can afford.

"7. However great our financial resources, there is somewhere a limit of legitimate expenditure, and as we dare not endanger our naval supremacy by stinting the Navy, it behooves us to consider how the cost of the Army can be reduced, or, at all events, kept within reasonable bounds.

"8. At present, the British Army costs more than any other, but is nevertheless incapable of successfully encountering the forces of any first-class Power, whether in the British Isles or elsewhere.

"9. We require a larger and better, and yet a cheaper Army.

"10. We are a commercial nation, anxious of all things to enjoy the blessings of peace. Therefore we need to be so well prepared for war that no foreign Power will be disposed to pick a quarrel with us.

"11. In war there can be no final decision until one of the combatants has successfully invaded territory belonging to the other; but whatever the eventual result of the fighting, the country that actually suffers invasion must sustain the greater damage.

"12. It is the first duty of every citizen to defend his country, and sufficient numbers must therefore be so trained to arms that they shall be fully capable of discharging that duty. The cheapest as well as the best defence is to attack the adversary, and to this end the forces of the State should therefore be organized.

"13. The normal obligations of Empire and a struggle for national existence represent problems that are quite dissimilar, and require, therefore, to be dealt with by entirely different methods.

"14. Relying as we do primarily upon naval defence, we do not

require a huge Regular Army such as Continental nations are obliged to maintain, but only a sufficiency of first-rate soldiers to furnish over-sea garrisons and to undertake 'little wars.'

"15. The Regular Army we now have is more numerous than is necessary for the 'Police of the Empire,' whilst at the same time too weak to be relied upon for Imperial defence.

"16. Our insular position ensures that the burden of defence must fall primarily upon the Navy, which will either be victorious or the contrary. In the former event, we can obviously choose our own time and delay offensive operations on land until the Army is ready to undertake them; or if, upon the other hand, the Navy were vanquished, we should in any case be undone. Therefore, provided a moderate force of regular troops is held ready to reinforce any threatened part of the Empire, we can afford to rely for the bulk of our land forces upon a partially-trained national Militia. If we had the men, we could complete their training when they were wanted.

"17. An adequate supply of suitable recruits for any branch of the Army can be obtained only by one or other of two methods:—

"(*a*) Making it worth a man's while to serve, or (*b*) compelling him to do so. For service in the Regular Army, which necessarily includes garrison duty abroad, compulsion is out of the question; but for a national defence force we can select the alternative that pleases us best.

"18. Our military needs, briefly stated, are as follows:—

"(*a*) Regular troops sufficient for the 'Police of the Empire' and of very high quality. These should furnish an example in peace and a nucleus in war for a much larger force of national Militia.

"(*b*) A great national Militia available for service over-sea in case of national emergency. This force needs only to be partially trained in peace, and may count upon the Navy giving it time to complete its training after a demand for its services has arisen.

"(*c*) The exercise of common-sense and businesslike economy in the system of Army administration.

"(*d*) A keener and more intelligent interest upon the part of the public in naval and military affairs.

"(*c*) Some security for the Army that Secretaries of State for War shall no longer be permitted to inaugurate so-called 'reforms' in defiance of the highest military opinions."

The *third* article, relating to the new two-year term of service in the French Army, is also of general interest:

"The new regulations, which will in all probability become law on January 1, 1906, and which propose to fix the future length of service in the French active army at two years, have so far attracted but scant notice in England; but, since France is almost the only Continental Power which, like us, has to reckon with the conditions of foreign service, while we, like the French, may one day—if the bulk of British contemporary military opinion is to be believed—have to arrange for a universal service which shall press as lightly as possible upon the manhood of our nation, a few remarks may not be out of place upon a measure, the initial principles of which have been accepted across the Channel almost without a dissentient voice.

"Already, in 1872, a color service, or service with the active army, of two years was spoken of, but it is only now that it seems likely to come into force. At present, the term of service in the active army is fixed at three years, but from this service a large number of favored individuals obtain exemption. Under the new law the whole of the youth of France will serve for two years only, the support even of a family being held to serve, while those dependent on him will, if in necessitous circumstances, receive a daily *solatium*—to use a word which has lately fallen into some disrepute—to make up in a measure for the absence of the bread-winner. Certain enthusiasts were much in favor of the immediate reduction to 12 months of the period of service in the active army; it was, however, generally felt that, while a period of three years is unnecessarily lengthy, one year is altogether insufficient to form *des soldats solides*. French military opinion insists that a man who has served one year in the ranks loses his value in the reserve far more easily than one who has been a soldier for double that time, and that it is impossible to form effective reservists out of one-year soldiers. The political opponents of the one-year term of service state that, were the length of active army service thus reduced, it would be necessary for 200,000 men to re-engage, and with the experience of England before them the responsible authorities in France feel that the class from whom these re-engaged men would have to be drawn is wholly unable to furnish them. There seems, however, to be a feeling among many of our neighbors that the attempt might well have been made to reduce the length of service from three years to eighteen months, the recruits coming up early in the year, so that for their training the more seasonable weather in two successive years might have been made use of.

"It is estimated, however, that, with the rearrangement of the

time and periods of actual drill and instruction, the total number of hours available under the two-year law for the forming of the soldier, will be actually more numerous than in the three years' service as at present drawn up. The soldier is also to get but thirty days' leave of absence during the 24 months that he remains with the colors, and he is to be called up early in October, instead of as now at the commencement of the winter, and it is hoped that in this way considerable advance may have been made in the instruction of the recruit, and in accustoming him to his new life and surroundings before the cold weather sets in. The supporters of the two years' period for *all* point out too that, whereas under the present regulations, of the 130,000 men who annually leave the colors, 70,000 are one-year men, and the remainder vary in the length of their service from two to three years, the two-year length of service will give all and each of this number a far more regular and uniform instruction. But the whole crux of the new law lies in the fact that every single male in France must serve his country for two years—there is no exception whatever except in the case of absolute physical incapacity, those physically incapable merely of riding or marching being made use of in other military branches of the Service."

The *fourth* article, by Baron Suyematsu, relates to the compulsory service system adopted by Japan, and is very interesting as presenting the Japanese view on the subject, from their actual experience:

"1. We have found that system superior to our old system, wherein fighting men formed a distinct class, and made military duties a sort of profession in their families. At first some people labored under an apprehension that the troops consisting of men recruited by the universal service system, who would naturally be taken from all classes, might not be so efficient as those consisting of men who belonged to the class just mentioned, and who, therefore, had traditional and natural proclivities for military duties. This apprehension, however, was altogether dispelled by the practical experience gained during the civil war of 1877. This was a campaign in which the Imperial Government troops, organized not long before on purely a universal conscription basis, contended against the regularly trained *samurai* of Satsuma, the most warlike of all the ancient military clans of Japan. The leader of the insurrection was Saigo Takamori, who, as an individual, was perhaps the most popular person in the land on account of the great services which he had rendered previously for the Imperial cause. It was a conflict in which I may be permitted to mention that I had the honor of serving my country,

though not, strictly speaking, in a military capacity. I was an officer on the Staff of the Commander-in-Chief, my official designation being that of a Secretary to the War Department. We then found that men under the compulsory service system were capable of being made far more efficient as a compact body than were the *samurai* under the older system, wherein the effects of discipline were somewhat subservient to individual prowess. Besides, the old system was not equal to the demands of modern military organization for many other reasons.

"2. We had also some experience (during the latter days of the Tokugawa regime) of the actual working of the voluntary system. But we have found the obligatory system superior to it, on points wherein uniformity is in many respects to be desired above all other considerations.

"3. Compulsory service puts the country to less expense. It would be almost impossible to maintain the number of soldiers on active service and in the reserve with the money we now spend were it not on account of that system.

"4. The system of universal service tends to make every citizen of the land feel his responsibility to the State more keenly—in other words, makes him more loyal and patriotic. This sentiment goes down to the lowest grade, and animates not only the men, but also the women, for the latter also come to share it with the men who are thus inspired.

"5. The nation becomes more compact by reason of the recruits coming into contact with men hailing from all parts of the country, and with men of all sorts, belonging to different social grades or professions in life, and through realizing that the great common cause of their mission or duty is above the particular interest of localities or classes.

"6. The system does good in regard to physical development and personal discipline, which latter enables a man to be more punctual and regular in his habits, and more enduring of hardships than he would otherwise be.

"7. Universal service gives to the people at large, as well as the recruits themselves, little chance of looking down upon military occupation as an unelevated profession, which is a great thing for keeping up the general tone of the Army.

"8. The universal service system dispenses with the necessity of employing all sorts of devices to induce men to enlist under the national flag for military service. It also enables the country to

obtain, on the whole, more desirable recruits, from its very nature."—By Colonel Favre of the Swiss Army."

The *fifth* article, is interesting as showing that even the Republic of Switzerland is seriously considering the introduction of compulsory military service:

"The Swiss Army is at the present moment passing through a crisis interesting for all those who are concerned with the question of compulsory military service. It is not that the Swiss Army is in need of a change of system. The present organization, which dates from 1874, has shown itself capable of constant development and improvement for the last thirty years. But it is characteristic of any healthy militia system which is also suitable to the temperament of the people that it stimulates a constant desire for progress. Hence the necessity of making the most judicious use of the limited means at our disposal, and of creating in the country and in the Army that inherited spirit of patriotism which makes up for the shortness of the period of military service. Within the limits of a militia organization, that is to say, of an essentially defensive system, experience shows that the extent of progress attainable is almost indefinite, provided that the national spirit maintains its vigor. But it is a delicate matter to perfect the military laws, in that the new law, once it has been voted by the Chambers, has to be submitted to the people and to pass the test of the Referendum if a certain number of citizens demand it. It is therefore very important that such a law should not make too great demands upon the national Militia. If it is necessary to increase these demands in one direction, means of alleviation must be found in another. In Switzerland the national institutions are supported by tradition and by universal consent; but though they have practically no declared adversaries there is always a party which thinks that enough has been done. Whether the taxpayers are military men or civilians they are naturally afraid of new burdens."

The *seventh* article has some interesting remarks:

"The unusual massing of Russian troops on the Afghan frontier derives greater significance from its coincidence with the outspoken demand permitted to be made in the well-censored Russian press that the Black Sea fleet shall be permited to join the flag of Admiral Rozhdestvensky ere that officer tries conclusions with Admiral Togo. * * * We do not suppose that any invasion of Afghanistan is now intended, notwithstanding that it would be possible for the Russians from Kushk to capture Herat at a blow. * * *

"It was not for us to blame the Russians for making their Trans-Caspian railway, whereby troops can be brought from the Caucasus and Southern Russia, by way of Usun-ada, Kizil Arvat, and Askabad, to Kushk on the Afghan frontier, and further to Merv in the Murghab Valley, Charjui on the Oxus, and on through Bokhara to Samarkand, Khojend, Khokand, and Andijan. Neither can we now take it amiss that they have thought it well to link up this railway system at Khojend and Tashkend by the line from Orenburg with the heart of European Russia. What we can do, and inevitably must do, is to take account of the new developments, and to recognize that by the latest railway success in carrying through the Orenburg-Tashkend line, the situation on the frontier has been changed altogether. The new line is not yet in full working order, and there are difficulties as to water supply in the Steppe; but, remembering the great ability of the Russians as railway engineers, and the triumphant success of Prince Khilkoff and his able lieutenants in keeping open the Trans-Siberian Railway throughout the war, and completing the very valuable and extremely difficult link round the southern end of Lake Baikal, it is not to be doubted that the Trans-Caspian line, which would form a base for an army to deploy upon preliminary to an advance upon Afghanistan, and which is now fed by two lines of rail, will soon be brought by one of them into effective communication with Moscow. Nothing will bring home to us better the strategic importance of the new line than the knowledge that troops from the heart of European Russia may now reach any place upon the Trans-Caspian line within little more than a week. The next move will certainly be to carry the line up the valley of the Oxus to a point within striking distance of Balkh. * * *

"The Indian Government is certainly not oblivious of this growing danger, and Lord Kitchener, since the first day he set foot in the country, has been contemplating it and preparing for it. The new conditions on the frontier explain all his military policy. They explain the conversion of some inefficient troops into police, the reduction of the establishment in Madras, and the measures which are in hand for distributing the Army strategically upon the frontier, and upon the lines that lead to the passes and approaches beyond the Indus."

The *eighth* article is a defense of the Militia System by voluntary enlistment, as opposed to the proposed compulsory service system, in England.

The *tenth* is interesting and timely:

"A NATIONAL AMBULANCE SERVICE.

"By Brigade-Surgeon Lieut.-Colonel William Hill Climo, M. D., Army Medical Staff (retired).*

"During the South African War, and for some time afterwards, the Army Medical Service met with much hostile criticism. Of the merits of the controversy, this is neither the time nor the place to form judgment; but it may be said as of most heated arguments, that much of this criticism was misdirected, and that an exaggerated importance was given to side issues. The all-important lesson of the war has yet to be put into practice; it is that the medical organization, which existed at the time of the war, and which still continues, does not comply with the demands of modern warfare (*a*) in regard to sanitation and (*b*) in relation to the care and treatment of the wounded on the battlefield and their subsequent disposal. Since the war much has been done to improve the conditions of the medical service by attracting candidates of higher professional attainments, and by affording opportunities for study, and by granting special rates of pay and accelerated promotion to those officers of the corps who maintain their professional knowledge, and who cultivate specialties. In this good work distinguished members of the civil medical profession, who form an important moiety of the Medical Advisory Board, have largely contributed; but these improvements do not touch, save remotely, the present question, which is fundamental, and which lies at the root of medical efficiency in war. * * * The effect of sanitation in the field is to many a matter of conjecture, or of doubt, or of a pious opinion, which need not be acted on; but there can be no dispute about the horrors of war as revealed by the conditions of the wounded in modern battles. The experiences of the Spanish-American and the South African War are instructive, but the Russo-Japanese War, so far as it has gone, has thrown upon these conditions a still fiercer light; it is, therefore, from the narration of these conditions, which are the direct consequences of modern warfare, that the necessity for a reorganization of the service will be

*Readers of this magazine, who have so often enjoyed the privilege of considering Colonel Hill Climo's views upon various medical subjects, will be interested to learn that he has just won the gold medal of the Association of Military Surgeons of the United States, 1904, as the successful competitor for the "Enno-Sander Prize," which that association most courteously threw open to officers of the British Medical Service.—Ed. U. S. M.

shown, and that without a National Ambulance Service, medical efficiency in war is unobtainable.

"Modern warfare throws upon the medical service a far greater responsibility for the treatment of the wounded than was the case when armaments were less powerful.

"The removal of the wounded from the battlefield is dominated by military necessity, to which the welfare of the wounded has to give way. It is a military maxim to which every other consideration must yield, that the fighting force in front must be set free for further action, and that all impediments to its onward progress must be removed, but for the wounded rest is all important. Sir Frederick Treves, in his evidence before the Royal Commission on the South African War, pointed out how dangerous movement was to the wounded, and how desirable it was that the soldier should be treated as near as possible to where he fell. He said:—

" 'The death-rate in war would only be very small if a small tent could be built over every man where he fell; it is the dragging about that kills him.'

"The first step in the removal of the wounded is their collection; the difficulties in doing so have been enormously increased by modern warfare; but, besides, these difficulties may be made still greater by topographical conditions such as are presented by jungles, undergrowth, and high-standing crops. One of the most harrowing experiences of the battle of Liao-yang, was the dreadful state of the wounded who fell in millet crops to perish miserably before help could reach them. Similar experiences occurred in the Indian Mutiny, where the wounded mutineers fell in fields of sugar-cane and millet, unobserved until the vulture and the stench revealed the presence of the dead. From the collecting stations the wounded are removed to the dressing stations, to the field hospitals, and finally to the general and stationary hospitals in the rear. It is of paramount importance that after the first field dressing is applied wounds shall not be disturbed, except where urgent operative interference is required; yet, as we see in the course of ordinary routine, the wounded are exposed to a cycle of changes, any one of which may give rise to fatal results.

"The disposal of the wounded after arrival at the collecting station has been, as we have seen, determined by military reasons, but beyond the question of supply and the sufficiency of the medical establishment there does not seem, except under very exceptional circumstances, any sound military reason why the wounded should

not be treated on, or in the immediate vicinity of, the battlefield, removal from the zone of fire being all that would be necessary. Supply does not seem to prevent any insuperable difficulty, for the transport required to move the sick and wounded would more than suffice to bring up supplies from the advanced depot, which at most, it is presumed, would not be further than five days' march in the rear.

EDITORIALS.

The plan for the improvement and enlargement of the Military Academy has been approved by a Board of Officers, consisting of the Secretary of War, a Lieutenant General (retired), the Superintendent of the Academy, and two disinterested and distinguished architects. The money has been appropriated for this work ($5,500,000). The policy of the present administration and the intention of Congress is that the work shall be carried on and brought to completion.

The first and most important factor is to meet the present requirements, that is, as relates to the accommodation of officers' and cadets' living accommodations, since at this time the barracks provided for a battalion of 350 cadets is occupied by a total of 500 or 530. If it shall appear when the additional barracks are completed, that the accommodations suffice for a greater number of cadets than are at present appointed and with a further increase no more than two cadets shall be assigned to any one room, then, and not until then, may the number of cadets be moderately increased in the event that the requirements of Service shall so demand. It is thought, however, that it will be many years hence before a *second* increase of barrack room will be needed or the strength of the cadet battalion, or battalions, be brought to a figure very much greater than at present. It has been argued that it would be better, in the event of such contingent increase in the number of cadets, say by one hundred per cent over and above the present complement, to modify the course of study for the several arms of Service, and have what some are pleased to call it, a *second* and even a *third* West Point. If tradition counts for anything in this land of irrepressible progress, let us at least have but *one* West Point.

A large majority of the Army we feel will respond to this sentiment, and even those who may be earnest and sincere advocates for some new system of instruction on lines in direction of bias or prejudice should carefully look into the individual history of the graduates of the Military Academy and there discover how absolutely absurd it *would have been* to have divided any one class, at any period *of its academic term,* into two sec-

tions, the first half to serve in the Engineers, Ordnance and Artillery, and the second half in the Cavalry and Infantry.

We speak of any period of the course, because from year to year there are radical changes in class standing, based oftentimes upon trifling shades of difference in scholarship, some members excelling at one time in this or that subject, and at another falling behind in a portion of the course, in which in other years they "bring up all leaway." Nothing will strike one more suspiciously in the record of the graduates of the Academy than the prominence attained by those who have been turned back one year for deficiency in discipline or some special study, and nothing is more evident to those who have carefully observed the detail system for *permanent* appointment in technical corps like that of the Ordnance, how small is the figure of West Point class standing. Competitive systems of examination, or, for the matter of that, in the pride of office consequent upon this competition and the nature of the duties which follow. This condition should be more pronounced in its effect in the future than if renewed details are to be based upon efficiency in the past Service and the realization that ultimate and permanent assignment can only be attained by that degree of merit compared to which the West Point standard is but its differential. May we not, from such facts as are here presented, at least hope that the course of study at the Academy, whatever it may be, shall remain the same for all, serving as well the requirements of our Service in the future as it has done in the past. It is also well to remember that the instruction at the several, and many we may say, military schools throughout the country are turning out gentlemen and scholars who are as willing and ready to take the advance course of study at the several post graduate schools as are the West Pointers, so that it is a question for the distant future and not for the present that of making West Point anything other than what it *has been* and that *it is*. It serves its purpose well—let that well enough alone.

* * *

INCREASE IN THE ALLOWANCE OF QUARTERS FOR OFFICERS STATIONED IN CITIES.

The allowance of *Commutation of Quarters,* as it is called, for officers of the Army stationed in cities or other places where no Government quarters have been provided, have been altogether too small for a number of years. The present allowance dates from the Civil

War, and, although adequate to that time, is no longer so.

A Captain, for example, is allowed commutation for three rooms, each room being rated at $12 a month, consequently his total allowance each month is $36, and for this it is practically impossible to obtain suitable quarters in many of our cities. A Major is allowed $48 a month and in cities like San Francisco it is not possible to secure a modest house for a family in a desirable locality for less than $55 or $60 a month, and even then the house obtained would by no means be the equivalent of the quarters furnished an officer of that rank at any Army post.

It has been proposed to increase the allowance by one room (12) for each grade of rank, and this is certainly a very modest request.

Rents have increased considerably since the Civil War, and yet the Army officers' allowance has remained the same. This has been a great hardship to officers on duty away from Army Posts, since they are compelled to pay each month a considerable amount out of their own pockets for what the Government is supposed to provide.

The Quartermaster General of the Army, the Paymaster General, the Inspector General, the Division and Department Commanders, the Chief of Staff and the Secretary of War have all recomended an increase in the allowance, and it is evidently a necessity. Congress has the matter in hand and it is hoped that the increase will be granted without delay.

Officers are not stationed in cities of their own volition, but by order of the War Department, and they are there of necessity. Most of the department and division headquarters are located in cities. Purchasing Commissaries, Depot Quartermasters, Paymasters, and officers in charge of medical supply depots are necessarily located there, for economy to the Government, as well as convenience in administration, and these officers should be furnished with quarters corresponding to those they would have if they were on duty at their garrisons or posts.

* * *

THE ARMY CANTEEN OR POST EXCHANGE.

The question of the sale of beer at Army canteens (or post exchanges, as they are now officially called) is again before the public. There is no question whatever but that the sale of beer at canteens would conduce to the improvement of the soldier in every way.

Company commanders are more directly interested in the welfare of the enlisted man than

any one else. They have the interests of their men at heart. they care for their comforts in every way. If the sale of beer at posts affected the discipline of the command disadvantageously the company commander would be the first to feel the effects. His troubles in the company would be materially increased, men would be getting into troutrouble, court martials would be more frequent, and the company would be constantly losing its old soldiers in consequence. All this would reflect on the company commander, and he would soon be called upon to account for these deficiencies by his superiors.

Since, however, nearly all company commanders are in favor of having beer at the canteens for the men, it is evident that they do not anticipate anything but *good* for the soldier to result.

There are many men at every post who would be perfectly satisfied if they could have a glass or two of beer a day, and would seldom care to leave the post if they could get it there. But when they go out to get it, they are very apt to take more than is good for them, and also to take strong drink.

The post exchange is practically a club for the enlisted men, and all the profits go to his improvement in a material way. For example, a certain proportion of the profits are set aside for the company messes, and these sums are used to purchase articles not furnished by the Government ration, but which the men are fond of, such as milk, eggs, new vegetables in season, etc., or in addition to those furnished, when the latter are temporarily insufficient. For this reason the men prefer to buy at the post exchange, because they know that the profits will be utilized for their own advantage.

The control of the sale of beer is also a most important factor, for the exchange officer is held responsible that this is not abused, and that no man gets too much.

Only officers on duty with troops can appreciate the advantages that would accrue were the sale of beer permitted, or fully understood what its absence from the exchange has signified to the Army. Were it in any way disadvantageous, especially in its effect on discipline, they would be the first to recommend its abolition.

It is hoped that Congress will be sufficiently independent to restore this feature to the post exchange, and can feel assured that, in that case, they will have the approval of the officers and the gratitude of the men, and that they will improve the Ser-

vice materially, and make the Army more useful to the country, because more contented and disciplined.

* * *

THE INCREASE OF THE ARTILLERY.

The necessity for increasing the artillery has become so great that any postponement of action in this mater will certainly mean inefficiency in our coast defense for some years to come. Every artillery post is so short of officers and men that it is difficult to conduct the drills and target practice with any satisfaction, or even to properly care for the material.

New posts and gun emplacements are constantly being turned over to the Artillery by the Engineers, and the Construction of the works proposed is only half completed.

The Artillery is still suffering from the last *sudden* increase and the consequent lack of experienced officers in the lower grades, but it is rapidly working out of this condition.

The ideal mode of increasing it would be a gradual increase of 20 per cent. each year of the total increase required, so that the complement would be filled in five years, but this is neither practicable nor advisable, since the total increase is really needed *now*.

The mode of increase proposed by transferring three or more entire regiments of Cavalry to the Artillery is too preposterous for serious consideration. In the first place our Cavalry should not be decreased, as we have none too much and it is an arm which should be kept nearer the war strength than any other, since it is needed at once when war breaks out, and cannot be improvised.

In the next place, these men and their officers have been trained to *Cavalry* service, have selected that branch, prefer it, and are at home in it. Think of the kind of *Coast Artillery* soldiers they would make!

Finally, would the authorities be justified in trusting the nation's defenses, on which many millions have been spent, to such unskilful hands? For these Cavalry officers, fine soldiers as they are in the saddle, know knothing of Coast Artillery, but worse than that, their captains and field officers would enter the Artillery with high rank, and would *command* important posts with costly emplacements and armament. The latter would rank Artillery officers of over a quarter of a century of *artillery* experience!

Promotion is practicaly the only reward of good service in any army, and is the one great element of interest in military life. The Coast Artillery has

had little opportunity to distinguish itself in action compared with Infantry or Cavalry, and promotion (both ordinary and extraordinary) has been slow. Majors of Artillery are contemporaries of Colonels in the other branches. Why then take from them their chance of a little promotion by transferring cavalrymen to command Coast Forts and supersede Coast Artillery officers of good records and long service?

The Artillery needs an increase very much, if the expensive material already provided is to be cared for properly and prevented from deteriorating. It needs it much more if the defenses of the country are to be kept in an efficient state for war.

It will, therefore be *true* economy to make the increase that is required: it will be *false* economy to neglect this duty of the lawmakers.

* * *

THE TORPEDO IN WAR.

The war in the Far East has emphasized the importance of the torpedo, either as a fixed floating defense in the form of submarine mines in harbors and channels, or as a mobile weapon of offense fired from a torpedo boat.

The principal destructive work of the Japanese fleet was performed by means of the torpedo, fired from torpedo boats. Had they possessed submarines or submersibles their action would have been far more destructive and effective.

On the other hand, had the Russians possessed an efficient system of submarine mines at Port Arthur, the Japanese would have found it far more difficult to attack the Russian ships in the roadstead. Submarines would also have greatly aided the defense, and shore batteries firing torpedoes would still further have improved the situation.

These shore torpedo batteries are perfectly practicable, and can be readily constructed to fire a torpedo twice the size of that carried on board ship and with higher velocity for a greater distance. Such a torpedo can be given a velocity of over thirty knots for 4,000 yards range. These shore torpedo batteries were recommended by the Endicott Board as part of our present system of coast defense.

The lesson to all nations then is that coast forts must be provided with a complete and effective system of submarine mines, managed by men trained to the work; that these forts must have under their control a number of torpedo boats and submarines to repel attacks either on the mine fields or on the forts themselves; and that the coast defenses must be provided

with shore torpedo batteries, particularly where mines are difficult to plant, as in strong currents or deep channels, or where fogs may favor a *run past* the outer defenses.

* * *

LAND DEFENSES FOR COAST FORTS.

The example of Port Arthur is very conclusive as to the necessity of defenses on the land side of seacoast forts against attack by an army on shore.

Without the ten strong forts covering the land approaches to Port Arthur that fortress would have fallen very promptly after Nogi's army landed, and that army would have been available at Liaoyang, and would have given the Japanese a far more decisive victory there.

Our system of fortification is more than half completed, but all our energies have been devoted to fortifying the sea front thus far, largely because of the lack of funds for any other than the most serious needs, but also because the land front was considered to be of minor importance.

It must be remembered, however, that the stronger we make the sea front the greater the necessity for fortifying the land front, because the more danger there will be of attack from that side.

The lesson of Port Arthur is too deeply impressed on the minds of all thinking men, however, and will not soon be forgotten. Yet the land defense of coast forts must not be put off until war comes, for it takes time to prepare it.

* * *

RAPID FIRE GUNS IN COAST FORTS.

The great authority on heavy artillery matters in this country, General Abbott, laid down the principle long ago that coast forts should have at least as many rapid-fire guns as a fleet can bring to bear on it.

At Port Arthur, splendidly fortified as it was, there was an evident deficiency in this respect, otherwise the Japanese torpedo boats could not have approached the harbor entrance with impunity, as they did on a number of occasions.

These also have been somewhat neglected in our defenses, not that their importance was not fully appreciated, but because the guns of heavy caliber were deemed more important, and take longer to construct, install, and become familiar with.

This lesson also has been learned and taken to heart, and will, no doubt, bear fruit in due season.

* * *

THE INCREASE OF THE MEDICAL DEPARTMENT.

The Spanish War left the

Medical Department practically as it found it, although all the line of the army had been greatly increased.

The splendid work of this branch of the army in Cuba and the Philippines, not only in the care of the sick and wounded, but in the prevention of disease and in eradicating yellow fever, will bear comparison with that of any army in the world.

The corps is far below what is needed for our present army, and there should be no question as to the grave necessity for increasing it at once.

* * *

THE ORDNANCE DEPARTMENT.

The change from a permament corps to a detail system has seriously affected this Department. The majority of its officers are experts and authorities in their various branches, and no more efficient corps of officers can be found in any army.

Under the new system of detail all the advantages previously held out to officers, which induced them to devote their best efforts to their work, are lost. The detail system cannot produce the class of men now permanently in the corps, because four years (the term of a detail) canot make an expert like those who have devoted their lives to the subject.

The detail system undoubtedly has immense advantages, and has improved every department to which it applies, it is therefore wise to continue it. But in the Ordnance Department such exceptional work is required, and such special ability, that an increase of rank should go with the detail. That will at least help to overcome some of the difficulties of obtaining efficient officers.

* * *

THE FALL OF PORT ARTHUR.

The fall of Port Arthur marks the critical point of the war, inasmuch as it insured the destruction of Russian sea power in the Far East for the time being, and renders the problem of the Baltic fleet very difficult of solution.

The isolation of this fortress on the sea side began with the Japanese attack of February 8th, 1904, but the communications on the land side remained open until May. On the 3d of May the Japanese made an unsuccessful attempt to cut the railroad running into Port Arthur, but it was not until the 14th that this was finally effected. The isolation of this fortress, therefore, dates from May 14th, 1904, and it was surrendered on Jan. 1st, 1905, after a most heroic defense of 231 days.

To Russia Port Arthur was of great importance. Her only

sea ports in the Pacific were Vladivostok and Port Arthur, and of these the former is not available for a great part of the year. Moreover, Port Arthur is some 600 miles nearer the home naval bases than Vladivostok, and had splendid docking facilities. To Japan Port Arthur itself had no great significance, except in so far as it protected the Russian squadron there. It was the destruction of the squadron that Japan was striving to effect, and which led her to sacrifice so much of her naval and army strength in the attempt to reduce the fortress.

Strategically, Port Arthur, as an element in the theatre of the land operations, had little significance. To the Russians, not unnaturally, it seemed proper to hold this, their only really valuable seaport in the Pacific, not only for itself, but also to gain time for the strategic deployment of their land army; but, as is apt to be the case always with strong positions which become isolated by the operations of the campaign, it served only as a trap in which the garrison of 30,000 men became lost to the field army, and the attempt to rescue the place nearly cost Russia her field army itself.

Sea power has been throughout and is still the deciding factor in this war. To Japan it is absolutely essential, for if she loses control of the sea her land armies will soon be forced to capitulate. To Russia it is important as a means of supply for her armies, as well as a means of transportation of reinforcements and material, for which her single line of railroad is inadequate.

The problem of the Baltic fleet is now a difficult one, unless it is prepared to fight the Japanese fleet. The fleet under Rojestvensky was able to coal at Vigo, in Spain, at Tangier, in Kamerun (Adama), and at Delagoa Bay; while Voelkersam's fleet coaled at Jibuti, a French port in the Red Sea. Both fleets entered the Indian Ocean, therefore, well supplied with coal, and assembled at Madagascar.

The combined fleets comprise seven battleships, two armored cruisers, two protected cruisers, four small cruisers and twelve destroyers, besides four converted cruisers (formerly merchant steamers), five ships of the volunteer fleet, seven transports and a hospital ship.

The fighting fleet of the Japanese comprises five battleships and five armored cruisers.

The two antagonists are consequently fairly equal in material, although the Japanese have the advantage in *morale*.

It is, therefore, still possible for the Russians to regain command of the sea, but the fall of Port Arthur compels them to

make for Vladivostok as a temporary base.

From Madagascar the most direct route appears to be via Chagos Islands, in the Indian Ocean, and then either through the Straits of Sunda (south of Sumatra) or the Straits of Malacca (north of Sumatra), and, after coaling at Saigon (a French port in Anam), proceed by the south of Formosa to Vladivostok. At Formosa, if not earlier, the opposed fleets will probably encounter each other. A glance at the map will show how difficult it will be for the Russian fleet to escape to its final port without a battle, since it must pass directly through the Japanese lines. The Russian ships may, therefore, be compelled to fight with bottoms fouled, and perhaps an insufficient supply of coal.

But if the Russian fleet proceeds to the Far East at all, it must be with the determination to fight. If it is to be confined in Vladivostok it will sooner or later share the fate of the Port Arthur squadron.

On land, the fall of Port Arthur has relieved the army of Nogi, and made it available at the front. The army has had hard and continuous fighting for over seven months, and requires rest and organization. But when it is fit for field service again, it can be taken to Newchwang by sea (since the railroad is probably destroyed), and a march of ten days would bring it up on Kuropatkin's right, where it would have a commanding position threatening the Russian line of communications, and its action may prove decisive at Mukden.

The fall of Port Arthur, therefore, has an important bearing on the campaign at sea and on land. The Russian fleet, even should it succeed in reaching Vladivostok, will have great difficulty in establishing sea supremacy for lack of proper docking facilities, which Port Arthur would have offered; and the army of Nogi can now reinforce Kuroki and give him the preponderance on land. Should the Russian fleet, however, succeed in destroying the Japanese fleet, the Japanese victories on land will be of no avail.

SERVICE SALAD.

CHAMPIONS.

From Blackwood's Magazine.

THE moment of deadlock had arrived. The Russian counter-attack, desperate though it had been, had failed to get home; but the Japanese infantry, immovable itself, was unable to turn the mass of Russians from behind the fold in the ground which they had reached. Barely three hundred paces separated the muzzles of these opposing lines of blackened rifles. But that narrow green strip was impassable to both. To show upon it was to court almost certain death. Already the turf was littered with fallen men, and scarred and seared with the violence of plunging shell. But the artillery fire from both sides had now ceased, since from the gun positions it was impossible to discriminate between friend and foe.

Lieutenant Tokugawa, of the —st Regiment of Imperial Japanese Infantry, lay amongst his men, with his eyes fixed upon a slight mound midway between the firing lines. The five stones which served him as a head-cover gave him a scant loophole. The little mound attracted him. It was little more than a fairy ring—perhaps it was some Manchu's grave; but it fascinated Tokugawa, and he made a mental measure of its distance. He was calculating if it should be the limit of the next rush when it was ordered. Tokugawa was a little man. But though his stature was small in the matter of cubits, his back was that of an athlete. He had the reputation of being the bravest and strongest man in the regiment, where all were brave and strong.

That mound—innocent little heap of emerald green—was exercising its fascination upon another soldier. Two of the most sanguinary rushes made before the Russian counter-stroke finally failed had been led by a tall fair subaltern and a long-haired priest. Twice had these two placed themselves in front of a group of desperate men and striven to win their way to the Japanese bayonets, and twice had rifle fire obliterated the attempt, leaving but a handful to regain the shelter of the dip. But the fair subaltern's eye had caught the mound. It marked the possible place for a pause, and, setting his teeth, he marshalled his shattered sections for a last despairing effort. The afternoon sun caught the glint of the tapering bayonets as the obedient *moujiks* rose to their feet. A clatter of rifles brought into position passed down the Japanese firing-line as the watchful little eyes accepted the warning. Up rose the youthful subaltern and priest, with perhaps twenty men behind them. One withering volley, and the attempt had failed almost before it had begun. The subaltern, the priest, and four others alone stood, and came racing for the mound. Other rifles spoke. One by one the men staggered and collapsed. Now only the priest and officer remain. A few more steps and the scant haven will be reached. The priest, with his lank locks waving in the air, his crucifix aloft, sinks to earth as his legs become nerveless beneath him. Yet,

though he is fast becoming spent, he holds the emblem above him. But the youth! Tokugawa can now see his fair yet firm-set features, can almost feel the flash from his blue eyes. The mud-spirts of striking bullets seem to entangle him; yet on he still comes. His life is surely charmed by that crucifix still held aloft with faltering strength in that taloned hand. A moment more and ——he is down behind the cover! The mound top is scarred and rent with striking nickel. The crucifix is shattered with the hand that held it, as the priest collapses to a dozen wounds. A sleet of bullets sweeps the narrow margin, and then all is still again.

A fierce light burns in Tokugawa's eyes. He is unwinding the thong from his two handed sword—the sword which his father wielded in the Rebellion—which his forebears in the direct line had wielded in a thousand fights for half as many years. His resolution once taken, nothing could shake it. The fascination of the mound was now changed to magnetism. He is on his feet—the true steel is bare in his hands, and he is racing for the mound. A shout goes up, a cheer in which both sides join. The tall fair subaltern has jumped to his feet. The best blade in Tsarskoe Selo is bare in his hand—he has accepted the challenge, and he stands with head erect at the base of the mound awaiting the onrush of his diminutive adversary. As if by instinct the battle in the vicinity accepts the trial by champion, and both sides rest on their arms, even expose themselves freely by rising to their knees.

The moment is supreme. The bright sunlight; the green, with its groups of fallen men, the lesser wounded raising themselves painfully to watch the coming issue; the war-bedraggled spectators shooting up as it were from the ground; the two main figures with a bright star of light on the ground behind them, as a sun-ray catches the shattered crucifix. Ten paces from the mound Tokugawa halts to catch his breath, for he has raced a hundred yards. The tall Russian lowers his guard, and bows slightly. He will take nc mean advantage. The little Japanese is quick to detect the courtesy implied, and, not to be outdone, instinctively inclines his head. Then, remembering he is a soldier, he brings his bright blade to "the recover." The Russian salutes likewise, and then they close in mortal combat.

The Russian is the swordsman—Tokugawa the energetic and vigilant assailant. The blades flash high and low for a moment; the clash of the steel is audible to both fighting lines, in spite of the din of battle raging with unceasing vigor all around them. Then a murmur goes up from the on-lookers, a blade has been flung clear of the melee, and falls—falls beside the crucifix. A shout from the Japanese—*Banzai! banzai! banzai!* It is the Russian who is disarmed. Whether snapped, or shorn by the superior steel, his blade has gone; he stands with nothing but the hilt in his hand. *Banzai!* The end has come, and the Russian onlookers fiercely grip their pieces. The subaltern springs back, and then hurling the remnant of his faithless weapon at his adversary's face, he closes upon him with his naked hands. The missile misses, and Tokugawa, with the agility of a squirrel, leaps sideways—the two-handed sword of his fathers is raised to strike—the end has come, and the rifles quiver in the Russians' hands. But no—the blow never falls;

with a side-sweep, which was the stoutest and noblest stroke that ever swordsman had struck, Tokugawa flings the weapon from him—twenty yards away it falls—and then man to man with naked hands the champions close. Fair-haired giant and swarthy pigmy. It is all over in a few seconds. By some occult leverage—some subtle science, in which mind triumphs over muscle—Tokugawa flings his great opponent to the ground, and kneels upon his chest. Again the cheer rings out. The Russians even join issue, for the magnanimity of the sword has not escaped them.

Tokugawa jumps clear, and, extending his hand, helps the Russian to his feet. For a moment the two men stand with hands clasped, looking into each other's eyes. Though they cannot speak each others' tongue, yet they read there that which no known language can express. The Russian stoops and picks something from the ground. It is the shattered crucifix; he places it in his late opponent's hand. Tokugawa tugs at the little chain at his breast. The link gives, and he passes to the Russian officer his seal and signet. Again the two men grasp hands, and then they salute and turn. The cheer rises afresh as they stride back to their respective lines. No finger touches trigger until both, after a farewell wave, are back to cover again. A moment's pause. The Japanese reinforcements have arrived. A heavy fire, a shout, and then the mass of Japanese advance and drive the Russians from the field.

BOOK NOTICES.

Imperial Vienna. An account of its history, traditions and arts. By A. S. Levetus, illustrated by Erwin Puchinger, 8vo. $5 net. John Lane, publisher, 67 Fifth avenue, New York.

Special permission from the Emperor of Austria to sketch buildings and palaces, such as the Hofburg, not ordinarily open for such purpose, has enabled the artist to add greatly to the interest and value of this book, the first to deal with the romantic capital throughout her different stages of development to the present day. The illustrations, over one hundred and thirty in number and for the most part in full page, are from sketches in line, crayon and wash and present a remarkable pictorial record of the history, architecture and life of the Imperial City.

The Shu-King. John Lane, New York and London.

The Shu-King, one of the oldest, if not the oldest book in the world, contains a world of wisdom. It is often attributed to Kongfukse (Confucius), and its precepts as originating with him, but he was only a compiler or restorer. He was a modern, being only 500 B. C., whereas Shu-King goes back to the deluge and brings down history at least 2,500 years. Its advice, its rules, its laws of conduct are as vital, as true, as imperative to-day as when they were uttered at the dawning of the world when the stars sung together, for the stars regulated and controlled all things and events in those ancient days.

Listen to this, "Do not saunter in pleasant ways nor devote yourself to luxury. Employing other, listen not to traducers. Extirpate the wicked without hesitation. Do not affect doubtful plans. Then all projects will be successful. Do not contra-

vene right principles in order to gain the people's plaudits, but do not oppose the people in order to indulge your own whims."

Contrary to general impression, the early belief and religion of China was purely material, and consisted in the worship of nature—above all, the heavenly bodies in their orbits and seasons. On them all was based. "Take into consideration that virtue consists in good government and government in nourishing the people."

Shintoism, the early religion of Japan, was just the reverse, it was wholly spiritual. It believed in an ethereal connection between the living and the dead. It made helpful, loving, protecting beings almost gods of the departed, and believed in their continued everlasting presence on the earth a part of their family and aiding and advising them always. Hence their love and worship.

The Chinese in these early times looked to the earth, tried to make it productive and bountiful and to effect this studied the stars in their courses and regulated their planting and sowing and cultivation by their prognostications. There is no intimation of a majestic spiritual, all powerful, all ruling, merciful or loving deity, nor even of the local limited gods and goddesses of the later Greeks. It was a worship of the material for practical purposes, and rather more a study of it than a worship. And so the dogmas were practical for every day life and affairs.

Divination was exercised and questions were referred to the Great Tortoise, the same probably on whose back the Greeks perched the world. Standards of weights and measures were determined by tubes, whose size was regulated by the musical note they emitted. So there was a curious blending of the scientific and the material, and still through it all runs the thread of respect, if not worship, of ancestors and progenitors.

This book gives us an interesting insight into a curious condition of existence in the world wholly and strangely at variance with our modern one and hardly conceivable by us. The notes by the translator are as interesting and instructive as the text of the work itself.

R. B. R.

INTERESTING STATISTICS.

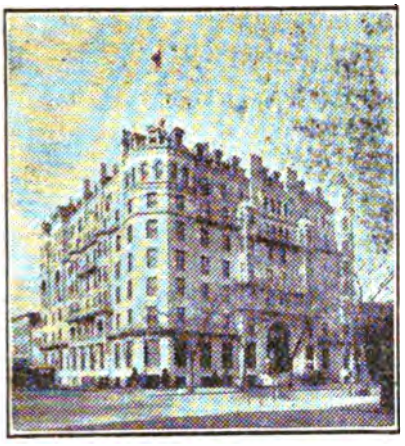
The following table of importations of the principal brands of champagne that arrived at the port of New York during the year 1904 should be of considerable interest to lovers of the sparkling wine.

MOET & CHANDON..	116,549	cases
G. H. Mumm & Co....	85,228	"
Pommery & Greno.....	24,143	"
Ruinart pere & fils....	15,822	"
Vve. Clicquot	13,076	"
Piper-Heidsieck	9,136	"
Louis Roederer	6,990	"
Pol Roger	6,603	"
Dry Monopole	2,932	"

Tabulated according to Custom House Statistics by Bonfort's Wine and Spirit Circular, Jan. 10, 1905.—Adv.

Rear Admiral C. R. P. RODGERS, U. S. Navy.

Rear Admiral Rodgers, C. R. P., U. S. Navy; born November 14, 1819, in Brooklyn, N. Y. Appointed midshipman for Connecticut, October 5, 1833. Attached to frigate Brandywine and sloop Vincennes, Pacific Station, 1834-36. Navy yard, New York, 1837. Sloop Fairfield and brig Dolphin, Brazil Squadron, 1837-39. Promoted to passed midshipman, July 8, 1839. Schooner Flirt, coast of Florida, 1839-40, and in command of schooner Phœnix, 1841-42, being actively employed in the Seminole war during those three years. Sloop Saratoga, coast of the United States, 1842-43. Commissioned as lieutenant, September 4, 1844. Served in Mediterranean Squadron in frigate Cumberland, 1843-45, and in store ship Lexington, 1845. Coast Survey, 1846. Frigate Potomac, and sloop Albany, blockading Mexican coast, 1847. Present and in the trenches at the reduction of Vera Cruz, and at the capture of Tuspan and Tabasco. Coast Survey, 1848-49. Frigate Congress, Brazil Squadron, 1850-51. Frigate Constitution, coast of Africa, 1852-55. Coast Survey, commanding steamer Bibb and schooner Gallalin, 1856-57. Steam frigate Wabash, of the Mediterranean Squadron, 1858-59. Commandent of midshipmen at Naval Academy, 1860-61. Commissioned commander, October 15, 1861. Served in frigate Wabash as captain, 1861-63. In command at the battle of Port Royal, November, 1861. Commanded steam sloop Iriquois, 1863-65, on special service. Commissioned captain, July 25, 1866, at the navy yard at Norfolk, 1865-67. In command of Franklin, Mediterranean Squadron, 1868-70. Special service in Europe, 1871. Chief of bureau of yards and docks, 1871-74. Commissioned rear admiral, June 14, 1874. Superintendent at the Naval Academy, 1874-78. In command of the Pacific Squadron, 1878-80. Superintendent Naval Academy, 1881. Retired in 1881. Died in 1892.



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THE

UNITED SERVICE

EDITED BY L. R. HAMERSLY, Jr.

MARCH, 1905.

*CHINA AND THE ALLIES.**

FORE-WORD.

THE Chinese expedition was the military solution of a commercial question.

The obstruction of European interests in the Extreme Orient produced the Boxer movement; the Boxer movement caused the expedition.

The soil of Pe-Chili was the military salon where, for the first time, the great nations of the Universe introduced their armies to each other.

There Jena drinks with Sedan,—Austerlitz and Moscow have but one mouth,—rejuvenated Palikao amazes Fashoda,—Formosa disdainfully returns the salute of Cuba,—consolable Adoua flirts with San Moun,—Peking reconciles Vienna with Paris.

It is the vortex of glories and sorrows.

Very much in fashion, for no one about her had taken account of the value of the smiles, France gave smiles and preserved her heart intact.

France gathered herself together.

She penetrated the exact resources of her allies of a day, enlarged her fund of Chinese friendship, and thus deciphered the teaching of events.

*Translated from the military library of R. Chapelot & Co. (Paris, 1903), for the Second Division, General Staff, U. S. A., by Captain Frederick L. Palmer, Ninth U. S. Infantry.

Above all, she carried away from the expedition the inestimable guarantee of a military valor which no one called into question, and the essential advantage of moral grandeur which could not succeed in healing all the jealousies.

The co-ordination of these efforts constitutes the durable work of France in the two years of the war.

This study proposes to give life to the portrait of the Boxer, that careless, vagabond and cruel Chinaman whom the European invasion made a patriot of an hour.

In a rapid review of each of the allied armies, it will tell of the impression they made upon us, of that which we left upon them.

It will draw from the comparative conduct of these armies with regard to the yellow foe, the enviable prestige which the humanity of our arms acquired for us over the inquiet soul of the Chinaman.

I.

THE CHINAMAN—THE BOXER MOVEMENT.

Causes of the War.—The glory of the Japanese arms had, in 1895, proclaimed the military decadence of the Chinese Empire. Europe, confused at having been forestalled in its covetousness, at once formed for itself compensations of interest.

Germany provides itself with Kiao-Tchou; Russia pays itself with Port Arthur; England exacts Wei-Hai-Wei; France obtains in the south the hedge of Kwang-Tchou; even Italy dares to pretensions by claiming San Moun.

It was a question of interpreting these diplomatic successes. It is, then, the annoying, consuming, devouring infiltration of economic hopes.

The Emperor Kwang-Hsu himself precipitates the overthrow of the national atavism by imposing reforms the irritating and brutal spirit of which condemned their durability.

Chinese indifference had been moved by the shock of these rapid events.

The Chinese People.—The country of Confucius, as the imagination of historians has presented it to us, is a China thoughtless, animated, and wise; it is very little the China of the lettered man and the mandarin; it is not all the China of the people.

Vigorous, resigned, resisting, facile, honest to a scruple, docile even to indifference, gay, simple and credulous, slow to progress, wrapped up in remembrances, the Chinaman of the street is a model of a philosopher.

His body is without needs, his brow is unclouded; a block of wood is an agreeable pillow for him, a wheel-barrow is for him a soft bed.

He lives in eternity; mystery attracts him, fear besets him. Fong-Choue, an indefinable spirit, determines the height of his houses, designates the sepulchre of his dead.

The dead are the gods of living China.

The worship of them is its religion, its morality is a mixture of respect and fear. The Chinaman prays only to disarm an anger. All amelioration of his lot leaves him indifferent. His heart does not pass beyond his family, his brain beyond the city.

Thus may be comprehended what uneasiness stirred the silent soul of China at the tempestuous blast of the ideas of the Occident.

So much inquietude seized the Court that, on the 21st of September, 1898, a palace crisis recalled to power the Dowager Empress. The old Manchu party again takes the direction of affairs, and Prince Tuan becomes the inspirer of the Boxers.

The Boxers.—The sect of Boxers is one of the numerous secret societies which elbow each other in China.

It has over the others the originality of addressing itself to the nervous affection, to suggestion and to hysteria, in order to spread abroad its doctrine and to recruit its adepts. Representations sown broadcast by its prophets, picture the supernatural properties enjoyed by its initiated, whom sabres, balls, bullets even, are powerless to destroy.

Youths, very young women, dressed in red, precede the warriors they animate; they command the massacres, draw on the hesitating, swell with cries, prayers, dances and gestures, the devastating tide. Everywhere the walls are covered with proclamations which uniformly end with these words: "Death to the barbarians! Down with the foreign devils!"

The dissolute Court soon finds for the evil only the remedy which is most welcome; it resolutely enters into the Boxer adventure.

A collective warning of France, England, Germany and the United States succeeds only in pushing the revolt to the gates of Peking.

Diplomacies, until now deaf to the clearsighted prudence of the counsels of M. Pichon, then think of military action.

Then comes, first, the lamentable check of the Seymour column, afterward the bombardment of Taku and the siege of Tien-Tsin, then at last the deliverance of the Legations.

The First Military Operations.—Prepared in the happiness of debarkation, begun in the chance concentrations of troops, these first operations lack unity in action and confidence in intention. All are

in accord only in thinking of themselves; the armies hesitate, the diplomacies fear.

The truth is that everyone drags his ball and chain.

Russia has Japan, Japan Russia; France has Tonkin, England the Transvaal; Germany has Kiao-Tchou, the United States the Philippines.

They discuss in order to delay action.

Darcy writes in his report of the 10th of July these words of lamentable truthfulness: "For the past thirty days the entire world is without news of us; it must be that diplomacy has some very mysterious undercurrents since the Russians and Japanese cannot find time in a month to bring 10,000 men under the walls of Peking. If the Powers, before succoring us, must agree upon sending the same number of battalions, of squadrons and of batteries, we shall wait long yet for our deliverance."

They waited a month longer.

The first troops thrown into Pe-Chili, badly clothed, poorly fed, without siege supplies, had to bear the murderous heat of a tropical climate and the fire of a perfected artillery. The evocation of Palikao deceived hopes, and the commerce of Europe made a disagreeable acquaintance with its military establishments. The character of the war was itself changed. It was no longer an affair with a government which fought to protect its interests, but with a land which took to arms to defend its territory.

The Seymour column, too light and too lightly engaged, is constrained to fall back on Tien-Tsin, entirely compromised. The confidence and pride of the Chinese were, meanwhile, swelled by its retreat.

The taking of the Taku forts at length gave the Allies a base of operations. But the siege of Tien-Tsin, which lasts a month, exhausts their efforts.

Three weeks are necessary to repair their forces.

An unaccustomed heat, an exceptional drought instead of the rains which, each year at this epoch, transforms the soil of Pe-Chili into a vast marsh, permits them to undertake the march to Peking. On the 14th of August the Legations were relieved, after two months of siege.

The caprices of the climate had delivered Europe.

France took part in these operations with three battalions of infantry and two batteries of artillery, marine troops which came from Cochin-China and from Tonkin.

These troops started precipitately. They had neither the time to await spare stores, nor to have themselves followed by coolies. Their only uniform was a suit of blue cloth.

The modesty of the effectives did not diminish the importance of their roles..

At the railroad station of Tien-Tsin, the marine infantry covered itself with glory. The energy of Colonel de Pelacot, on the night of the 13th-14th of July, decided the victory. The turning movement of 300 French troops, in a swampy plain, routed the Chinese at the battle of Pei-Tsang.

As always, the French temperament tempered in fire its incomparable military qualities: dash (élan), initiative, courage, and gaiety.

II.

THE ALLIED ARMIES.

The Bay of Taku.—The deliverance of the Legations was only the dawn of the campaign. The real action only began afterward. The civilized world at last decides to employ the argument of cannon. The international agreement, which is going to give to diplomacy a shield of 100,000 men and 300 pieces of artillery, throws before Taku the menace of its squadrons, redoubtable symbol of its will, radiant splendor of its strength. Each nation, by the character of its naval representation, raises the mysterious corner of the curtain of its thoughts.

Germany, which has in these last 15 years grown prodigiously, wishes at the same time to attract attention and set up a menace. The formula of its policy dates from Charles XII: "My policy is my sword."

While Russia contents itself with a division of cruisers, while England and France, those two giants of the sea, make a genius of rivaling each other in modesty, this last born of the ocean astonishes by its prodigality of vessels.

An improvised city rises before Taku, where move about, in the boulevards traced through the anchorage of the great ships, passers full of business, customers and tug-boats. In the distance but invisible, the shore is a sheet of mud on a level with the water. To the right and left of the Pei-Ho are forts of a sombre gray, molossi henceforth silent, lying in a vase filled with corpses. Farther beyond, a noisy life of junks on a stinking shore, a busying of Chinese in rags over the silence of the ruins: that is Taku.

One arrives at Tong-Ku, where one debarks: accumulation of

beasts, of munitions, of provisions, and of soldiers. Then, after a vast solitude of tombs interspersed with marshes, a hive formidable for its rancid atmosphere, for its ceaseless activity: Tien-Tsin, center of communications, storehouse of the expedition, heart of the allied staffs.

The French.—The French staff which finds itself here united is a medley of officers of Marine and of officers of War. If the Marine has almost everywhere had the higher direction, the War has known how to give its contribution to it with intelligence.

The close understanding, the confidential reports of the general and of the commanding admirals, hold tendencies to particularism. For the first time, perhaps, the forces of France show to the world a great united family. Certainly there still subsists on both parts subdued intelligence and exaggerated self-complacency, but it cannot be denied that the China campaign did more for fraternalization than all the previous efforts taken together.

The colonial army and the metropolitan army have both clothed themselves with sufficient glory and so covered themselves with laurels that no one need blush at their introduction to each other. The mere examination of their personal qualities alone puts them both in an excellent light.

The originality of view acquired by voyaging, the habit of precocious command, the multiplied exercise of responsibility, develop early, with the colonials, an adventurous and decided temperament.

With us, on the contrary, the mysterious impress which leads our ideas to a central and unique thought: the preparation for the event, fashions a spirit deliberate and resolved.

But these two characters blend a very decided personal grandeur into an ideal common strength.

If the Germans clearly show their preference for our metropolitan army which better answers to their conception of military cohesion, the Russians who fought at Tien-Tsin by the side of our marine infantry cannot exhaust their admiration for the high spirit and bravery of the colonial troops.

The Russians.—The Russians passed to Pe-Chili like meteors. The conciliation of their attitude toward the Chinese Court sufficiently indicated what price they attached to the continuation of its friendship. They rapidly retired into Manchuria, where secret conventions accorded as compensations the liberty of their movements.

Clad in long cloaks of ground color, on which the abundance of grease deposited a sort of varnish, the face disappearing under a hirsute fawn-colored beard, a cap of thick fur thrust over the eyes, a

mixture of Siberian ruggedness and Mongolian cruelty, our loyal allies appeared to the other armies like the descendants of the warriors of Ghengis-Khan.

Erect on their horses, they rode madly—these soldiers of another age—through the streets of Tien-Tsin, through lack of other occupation, through carelessness, or through drunkenness, overthrowing whatever was encountered by the mad gallop of their ardent steeds.

Facility of enthusiasm and fever of movement form the foundation of Russian temperament. Add to this nerves, and you have the French temperament. The Sclav exuberance owes nothing to the Latin exuberance. The Russian does everything with his whole heart. It is always that which speaks first. When in the evening, in the twilight of the steppes, the soldiers sing around the standard, it is their soul which weeps harmonies, it is that which utters with all its forces the impatient appeal for glory, for the Russian loves war and gives it all his heroism.

Affection of the soldier for his chief, of the chief for the soldier, supreme affection of all for "Our Father the Czar," that is all the Russian, and it is all Russia.

The army of Asia and the army of Europe differ in aspect as a sword of honor differs by the hilt from the sword of battle. The one is mounted with gold and enriched with precious stones, the other is without carving and without ornament, but the blades are of the same steel.

The umbrage which Russian valor gives to German pride haunts Japanese self-conceit with persistent uneasiness.

The Japanese.—Scarcely have the Japanese and Russians shared the honor of having delivered the Legations when already they turn all their efforts toward ridding themselves of each other.

The Japanese soldier is vigorous, coquettish, disciplined, nervous. He has indefatigable legs, a patient stomach, a prodigious sang-froid, the courage of antique legends.

The infantry fears no comparison. It has taken from the French its field service, from the Germans its garrison service. Its maneuvers are copied from ours, but the soldier renders honors and salutes in the German style, and his doll's figure goes well with his parade step as does the tall Prussian stature.

The cavalry does not exist. Horse and rider are detestable. Time will perhaps improve the mounts, but time will never improve the Japanese conformation.

The artillery, which possesses some power, loses it through its teams.

These weaknesses are immaterial in insular war, for Japan, hedged in by high and wooded mountains separated by numerous and low-lying rice-plantations, needs no succor against invasion. But if it attempted some day to carry war into Manchuria, the marvellous Russian cavalry, an impenetrable and sure screen for maneuvers, would reserve some disagreeable surprises for its infantry.

The necessity of communications, and the ingratitude of the climate would, besides, bring considerable reduction of the effectives. Climate is important to the immunity of courage as it contributes to the building up of the organism, and, here, the waste of Japanese valor would reinforce Russian strength.

Alliances would not intervene. Japan is too far from the trend of the events which sweep our epoch to triumph over the calculations of England, which will never consent to take a hand when India is at stake, when the attitude of the United States threatens to be deplorable, in tearing, for the profit of Japan alone, Tonkin from France, Corea from Russia.

A bellicose nation with exhausted traditions, Japan has kept of its past only an incomparable pride.

Born too soon into the light of the Occident, the Japanese has entered too rapidly into worldly civilization, has bought progress as a completed outfit, has quitted his country to copy the universe, and has returned to it to conquer it.

But, as well as the Russian, the Japanese knows how to die. Though equal, their heroism is divergent. The one is spontaneous, the other of imitation; the one of temperament, the other of comparison. The heart of the Japanese vibrates only to envy, and the penchant of Japan for Germany, so marked in our days, is inspired less by sympathy than by ambition and pride.

The Germans.—The Germans came to us, their hands filled with pardons. We gave them our hands, our hearts filled with sadness.

Large, ruddy, robust, with menacing moustache, sonorous step, imperious gesture, they misplace their importance; they are a self-satisfied people.

If their sometimes unfortunate allusions, their often noisy joys, have more than once touched the delicacy of our sentiments and the piety of our memories, it was in spite of themselves. They must not be held too severely accountable; they are parvenus.

The influence of Marshal von Waldersee lessened the wounds.

The Marshal is a man of distinction. He has a proud bearing, an honest face, and a hearty manner. He is skilful, diplomatic, has known how to preserve his importance with a mutilated command—

for that his authority was not recognized by everyone was unknown to none—put no alloy into his sympathy for France, solved with probity all questions in his jurisdiction, and returned to Europe surrounded with universal sympathy. France and Germany had only coquetries. Each in turn did the honors of the house.

The Marshal invited all the expeditionary corps and the European population of the Concessions to a grand review. This took place at Tien-Tsin in January, 1901.

Count von Waldersee goes direct to the French officers, whom he begs to accompany him. Every one is attentive, for every one expects something grand.

The Marshal at first salutes the troops, who swell with their hurrahs the storm of trumpet flourishes. Then slow music, heavy, profound, theatrical, starts the infantry into the spring of the parade step which cuts the alignment. The artillery and the cavalry pass at a walk without creating any impassioned interest. The howitzer batteries and the mounted infantry alone fix the attention.

All that was very correct, but it created no enthusiasm. The spectacle had majesty, but it had no power. Soul was lacking, as they say at the theatre, that is to say, the mysterious nothing which impassions, and which here consists in the grandeur of being natural.

A month later General Voyron, without ceremony, held a review of the French expeditionary corps. No one was invited, and every one came to it. The German officers saluted us with a smile.

Our Zouaves started off with an elastic step, a bearing warm, full of color, luminous, borne along by airy music which smacked of the bayonet. The step of the mules presents the mountain batteries in a marvellous line. The swaggering trot of the horses superbly carries by the 75 mm. batteries. The gallop of the Chasseurs d'Afrique, abruptly brought to a halt in a cloud of dust before the group of foreigners, compels their admiration.

Our soldiers had been so true to life, their bearing had been so frank, their "élan" so sincere, their swaggering so natural, that the German officers quitted us without a smile.

Some certainties had gone to pieces, and some hopes had grown large.

The English.—The English resisted their admiration the less as there could be between them and us no military jealousy. Their troops came almost exclusively from India; the officers only were English.

The Indian is consequential, majestic, but fatigued. His officers accord him courage; it is not for us to deny it to him.

The Cavalry has superb horses ridden by excellent horsemen.

The English officers are all tall, slender, stiff, phlegmatic, gentlemen, begin their day in the tub and end it in the club, play tennis, frequent the races, cultivate their ease, respect their habits, weigh upon every one but tolerate being weighed upon by no one, stickle for etiquette, are slaves to conventionality, never expose their dignity, are vain of their vigor, which is their greatest merit, ignore kindly attentions as improprietics, are frank, proud, loyal and disdainful, lodge a stainless bravery in a faultless smoking, ride horseback like centaurs and hold a riding whip as if it were the sceptre of old England; but they temper their defects with solid qualities: order punctuality, practical sense, clear vision, tenacity in audacity, uprightness in energy, confidence in success.

Even if they are not without reproach as military men, they are assuredly men.

Their relations with us have always been highly cordial.

If unfortunate circumstances have divided the soldiers of the two countries, the misfortune of the circumstances sealed the touching affection of the French and Austrian contingents.

The Austrians.—Austria showed us several marines of very fine appearance, whose conduct in the defense of our Legation was admirable. We are bound to them through gratitude, and we owe a respectful admiration to the heroic devotion of Mme. de Rosthorn, the young wife of the Charge d'Affaires, who, during the 59 days the siege lasted, prepared food for the defenders, gave care to the wounded, and, in difficult hours, relieved their fatigues by her inexhaustible gaiety.

She honors the Cross the French Government has given her.

The tranquil modesty of Austrian courage contrasts singularly with the abounding amiability of the joyous Italians.

The Italians.—The steam-launches of the Royal Marine performed a noisy police on the Pei-Ho. At Tien-Tsin, the "Bersaglieri" passed the time in patrols; at Peking, they gallantly did the honors of the Summer Palace. In charming relations, the Italians left all others behind in politenesses. Having no palpitating interests in the Extreme Orient to defend, they almost always kept away from the operations.

The Americans.—Like Italy, but evidently from commercial considerations, the United States early renounced all operations.

The soldier of the Union is, first of all, a citizen of free America. He is a military man by contract, is disciplined on occasion, holds himself aloof from association with others, rides superb horses, possesses equipments of the first order, has excellent arms which he is

always seeking opportunity to use, was, in China, the "Rough-Rider," the break-neck he glories in being.

He is a companion of a band, he is not a soldier of an army.

In the midst of the diverse physiognomies and different aptitudes, the French soldier was himself.

No one preceded him in intelligence and in bravery, no one equals him in generosity, in swagger and in gaiety, and he is the only one who possesses "élan."

The officer, who possesses all his qualities and all his defects, does not fear comparison for the solidity of his knowledge. The affection which attaches him to the soldier and which the soldier returns him, their community of heart, of effort and of suffering, have put to rout the ostracism of the foreigner.

The rapid pacification of the regions placed under our protection, the prompt resumption of social life in the localities we guarded, the great honesty which marked our action everywhere, acquired for us the diplomatic friendship of the Court and the confiding sympathy of the Chinese to such an extent that they were accustomed to ask of our colors protection from our allies.

Our expeditionary corps victoriously proclaimed this civilized truth: in matters of colonization, temperament is the war-arm which has the greatest penetration.

III.

THE SITUATION IN THE EXTREME ORIENT.

The Court passed in the country the time which the Allies passed in the campaign.

It waited for a year at 1,000 kilometers distance from Peking and sheltered from an audacious raid, for the hostile brothers, hat in hand, to cut each others' throats, stiffened its resistance or bent its claims with the evolutions of European energy, according as the noose slipped more or less tightly. It decided, driven at last to consent, to confide the chances of the times—for the Asiatic has time at his left side as the soldier has a sword at his right,—it confided the chances of the times to the proved skill of Prince Ching and old Li-Hung-Chang, who, on the 14th of January, 1901, signed the following protocol:

1st. An imperial Prince shall bear to Berlin the regrets of the Emperor of China for the murder of Baron de Ketteler, minister of Germany;

2nd. A severe punishment shall be inflicted upon the chiefs of the Boxer movement, notably upon Prince Tuan;

3rd. The importation of arms and war materials, their fabrication, are interdicted;

4th. Permanent guards shall be maintained for the defence of the Legations;

5th. The forts of Taku, the fortifications of Peking at the sea, in particular the walls and works at Tien-Tsin, shall be demolished;

6th. The points necessary to assure communications from Peking to the sea shall be occupied in a military way;

7th. An indemnity shall be paid to the Powers for the expenses of the war and the damages caused to foreign nations;

8th. Until China has conformed to the preceding conditions, the Powers shall occupy Pe-Chili and Shanghai.

The expeditionary corps are immediately broken up, the brigades of occupation are reduced to 2,700, then to 1,700 men; into the Legations, rebuilt and fortified, are thrown 300 soldiers of each nation and some cannon; it is agreed to guard the principal points of the railroad from Peking to Tong-Ku, while three sentinels attentively watch China: Port Arthur with Russia; Kiao-Tchou with Germany, Tonkin with France.

But, as with medals, there are two sides to the Chinese character, and we behold this humiliating spectacle: the Empress overwhelming with graciousness the ministers and their wives, and adjourning *sine die* the regulating of the indemnities while waving before their eyes the phantom of the Boxer who is gaining provinces.

And, if we see China display, to the universal astonishment, her impunity more revolting perhaps than her crimes, and her audacity more monstrous than her impunity, it is because the irreconcilable antithesis of interests which military synthesis of the allied effort resolutely hid had not escaped her singular clearsightedness.

The English covet Ching-Wang-Tao, the only point on the coast of Pe-Chili always free from ice, pretend to enlarge the importance of their mining concessions of Kai-Ping, and to increase their interests in the railroad from Peking to Shan-Hai-Kwan.

Germany, after having vainly caressed the hope of dividing up the Middle Kingdom and taking as her part the protection of the missions, is reduced reluctantly to the development of its commercial navigation in Extreme Oriental waters and to improving the value of Kiao-Tchou, where 174 millions already invested have accomplished marvels.

Japan, whom a large concession in the native city of Tien-Tsin satisfies but partially, especially wishes to play a preponderant role in Chinese affairs. Pe-Chili overflows with Japanese officers who instruct the Celestial army; the great maneuvers of the Mikado in 1901 were a grandiose representation intended to strike the military mandarins whom the Japanese Government had invited to them.

The United States, which in the beginning insisted with France and Russia that the integrity of the Empire must be maintained, dream of extending their commerce with the Extreme Orient of which they are already the greatest suppliers of metal goods.

Russia, which willingly consents to evacuate Manchuria with the fierce resolution never to leave it, which, by Port Arthur and Vladivostock, holds Corea in its grasp, beams upon the Asia of the Orient. Its policy puts all its skill into preserving the Chinese friendship, all its resistance against yielding up Manchuria, all its authority in interdicting the Japanese occupation of Corea, all its moderation into putting off a conflict with Japan.

France, which possesses at Tong-Ku, at Tien-Tsin, at Shanghai, interesting concessions, to whom the work of the missions has created almost everywhere important groups of villages which are Christian, that is to say French,—(for the Chinese, save for themselves, recognize only France and have never, to the burning indignation of the Allies, pretended to set up other colors than ours)—France pushes farther each day, in feverish haste, the penetration of its railroad from Peking to Hankow.

All these competitions, these covetousnesses, these hopes, elbow each other, jostle each other, develop each other, cross each other, smile at each other, fear each other, before the attentive confidence of the Government of the Middle Kingdom.

In falling, the great alliance formed some quite imposing fragments.

England lays hold of the financial difficulties of Japan, whom she saves from embarrassment at the price of an alliance.

Russia, whose immediate interests in the Extreme Orient this compromises, and France, whose Tonkin it menaces, respond thereto immediately by a vigorous declaration which the United States, in the "wings," notices with a welcoming smile.

But these preoccupations, these inquietudes, these wrestings, these shocks, have taken away nothing from Chinese serenity.

China felt the war as the root feels the shaking of the leaves. Far from having provoked in her one of those formidable anarchies

of conscience which transform a society, the expedition attained only the prestige of a phantom. To make turn upon its hinges a door so long rusted as progress has rusted in the Chinese brain, it was imprudent to attack the ironwork with a sword, for the door, in falling, menaces killing the workman. It was wiser to impress upon this millenary sleep the gentle circulation of ideas which are the very blood of civilization.

We can say with pride that France, whose genius conducts the civilization of the globe, whose thought is the sun of the world, France was, over yonder, the Mother, majestic and pregnant with ideas which will henceforth do missionary service in the Chinese mind.

A STUDY OF ATTACKS UPON FORTIFIED HARBORS.

THE CAPTURE OF PORT ROYAL, S. C., IN 1861.

A PURELY NAVAL ATTACK, YET UTILIZABLE ONLY THROUGH THE PRESENCE OF A SUPPORTING ARMY.

THE examination of the naval attack of harbors in our Civil War is particularly interesting, because with the navy, as with the army, the development of tactics during the war was very great, and starting with rather crude ideas in 1861, at the close of the war our practice was as far advanced as any nation has since gone.

During this war our navy was used almost entirely in maintaining a blockade of the coast, and in patrolling the great rivers to aid the armies in the field. It seems that if we stop a moment here to study the respective fields of work of armies and navies it may serve to clear our minds so as to judge wisely as to what operations of coast and harbor attack it is proper to undertake, and therefore what points are likely to be atacked in force. Both the army and navy, of course, are merely instruments of diplomacy and high politics; in a war the immediate object of any army or of any fleet under normal circumstances should be the destruction of the armed forces opposed to it, but when this has been done, the ultimate objectives of the two services are entirely different, that of the army being primary, and that of the navy being altogether auxiliary.

In short, it is the duty of a field army after it has subdued opposition, to occupy the country, to convert itself into a territorial garrison and control the inhabitants, their laws and their daily life, so that under this shield the profits of the industries and commerce of the conquered country may be diverted to the treasury of the conqueror. As extreme examples of this ultimate use of an army we have in ancient times, the occupation of the Roman provinces by the imperial armies, in modern times the occupation of India by Great Britain. Each case covers a period of centuries in which after every advance the invading and conquering army settled down in garrison, and under the imperial peace a great

stream of tribute, more or less concealed under commercial forms, flowed to Rome or London. In each case the monotonous patrol and sentry-go of the expatriated legions was, with reference to the home empire, productive labor, feeding and clothing millions of compatriots who never left their firesides.

To be sure, conquering nations do not always care to recoup and reward themselves for their losses and efforts by an annual payment collected through the presence of a permanent garrison. It is often thought better, as by Germany in 1871, to commute the annuity into capital by collecting a great war indemnity in two or three years, and then withdrawing the garrison whose occupation served as guarantee for payment; and there are other terms of settlement which may be agreed upon.

The navy has a minor role; it cannot occupy territory nor search out and control people and their business, therefore it can do nothing in peace to support the home country.

In war, after the navy has defeated the forces opposed to it, its duty is the auxiliary but very important one of maintaining the communications, both military and commercial, of its own country while breaking up in every way those of the enemy. A navy has no other legitimate object. If it is employed for other purposes it is only because no other means are available, not because no other means are better.

Like the British blockades of France, a century ago, a great blockade may be established as a means of defence, as a screen behind which the national commerce may develop in comparative safety and armies pass upon their occasions. Or, as was the case in our Civil War, the blockade may be an offensive measure, throttling the enemy's communications, cutting off his supplies and hindering his military movements.

During the Civil War the navy had two principal fields of work, one was the blockade of the coast, cutting all the oversea communication of the insurgent territory and armies, and the other was the opening of the Mississippi. Really it should be called the closing of the Mississippi, for the reason that the States west of the river were never seriously attacked, but they sent all manner of supplies, both men and material, to aid in driving back the Northern armies. The entire effort of the navy in this region and a great part of that of the army was devoted to cutting this line of communication, after which the navy kept it closed while the western armies concentrated before Chattanooga and marched through Georgia.

Both these great efforts of the navy during the whole four years had only two principal objects, namely, to facilitate the advance upon Richmond, and the western march to the sea. One great eccentric effort was made during this time, to capture Charleston; it was undertaken solely as a political revenge upon the birthplace of secession and, being without a sound military object, the operations failed until in due course of time they were embraced in the plans of the great march to the sea.

The first great naval attack in the Civil War, in point of time as well as in the development of methods, was that upon Port Royal in November, 1861.

The Secretary of the Navy, in his report for 1861, says:

"It was found that naval stations and harbors of refuge during the tempestuous seasons would be indispensable if hostilities were to be continued, and the stations thus secured could also be made the point of offensive miliary operations. . . . Two combined military and naval expeditions have already been organized and put in action. Such co-operation and concert of action between the two arms of the service were indispensable; for, although the navy alone might assail and capture batteries in some positions, it was not within its province or power to retain or garrison them."

After mentioning Admiral Dupont as having been selected to command the naval part of the combined expedition to seize an important base south of the Chesapeake, the Secretary continues:

"Informed of the policy and views of the government in regard to the expedition, prompt to execute its wishes, and having made himself familiar with every eligible port on the Southern Atlantic coast, he, as commander of the expedition, was intrusted with the selection within prescribed limits of the place where the first assault should be made."

The network of inland water-ways along the coasts of the South Atlantic States made it very difficult for the blockading force to operate efficiently. This first combined expedition primarily was intended to seize a harbor as a port of refuge and base of supplies for the blockading fleet, and secondarily, it was hoped that by active co-operation between the army and navy it would be possible to advance upon the defences of the principal cities and cut their communications, after which the cities would be occupied, and the blockade would be very easily conducted by small forces operating within sheltered waters, while the ships released would be available elsewhere.

The expedition was assembled in October, 1861, in Hampton Roads, and sailed on October 29 for a destination which was not finally settled upon until after departure. The Southern government knew as well as the commander-in-chief the ports to which his instructions limited his choice, and preparations for defence had been made at all of them.

On the part of the navy, the expedition consisted of two large steam frigates, three sailing frigates, five sloops of war, six large gunboats and several despatch boats. Besides there were twenty-five colliers to establish a coal depot after seizing the base.

The military part was commanded by General T. W. Sherman with 15,000 men embarked on thirty-two steamers. After very rough weather the greater part of the transports arrived off Port Royal, which Dupont had decided to attack, being led to prefer it to neighboring ports on account of the greater depth of water there available.

The fleet, dispersed by a gale, anchored off the Port Royal Bar all through the day of November 4. All aids to navigation had been removed and the bar was ten miles out at sea with no prominent land-marks visible.

By the afternoon the channel had been sufficiently examined and marked to send in the lighter transports and the gunboats, and before dark the former were at anchor in the roadstead three or four miles below the batteries, while the gunboats chased two or three hostile gunboats to shelter.

The following morning a reconnaissance by several gunboats again drove back the hostile gunboats and the distant fire from the forts showed that they were formidable works. At high tide the heavy ships crossed the bar. The work of planting buoys as guides for maneuvering in the strong tides was immediately begun, but was finished too late to attack that day. On the 6th, a S. W. gale prevented operations. The 7th was calm and at high tide the fleet moved to the attack.

The fixed defences of the sound comprised two forts, Walker, on Hilton Head, and Beauregard at Bay Point.

Walker was armed with twenty-two guns in all.* Beauregard

*Sea face: two 6-inch rifles, six 32-pdrs. M. L. S. B., one 10-inch Columbiad, one 8-inch Columbiad, three 7-inch sea coast howitzers. Left flank: one 32-pdr., one 42-pdr. sea coast howitzer not mounted. Right flank: three 32-pdrs. Outwork in rear commanding shore approach: two 32-pdrs., one 8-inch heavy howitzer, two 12-pdr. siege guns.

had four faces looking on the water and contained eighteen guns in all.* Total forty guns.

The mobile defences consisted of six river steamers of light construction and armament and exposed machinery.

Dupont organized his forces in two columns, the main column contained nine vessels, including the Wabash and Susquehanna and a sailing frigate under tow, and fired on a single broadside† a total of fifty-nine guns.

The flanking column had five ships firing sixteen guns on a single broadside.‡

The fleet got underway at an hour suiting the tide, with the flanking column on the right, and passed up midchannel, opening fire at a range of perhaps 4,000 yards. Having reached a point two and one-half miles north of Walker it turned to the west and countermarched close to Walker, proceeding slowly against the tide and passed it within 800 yards. On nearing Fishing Rip Shoal the fleet turned north once more and passed Fort Walker at 600 yards. The firing was continued until the third passage in, when the forts' fire ceased at 1.15 P. M. The flanking squadron had orders to accompany the main squadron until the first turn, when the light squadron was to drive off the hostile force afloat and then take up a position close in shore to enfilade Fort Walker. The flanking squadron was particularly instructed to see that the Confederate gunboats should be prevented from slipping out in the smoke and attacking the transport fleet. These light craft withdrew at first, but came out as the main hostile column turned south, but on the return of the column they allowed a heavily-armed gunboat to drive them into Scull Creek.

The fire of Fort Walker was directed rather high and most of the hits were aloft. The ships also fired high, many shells were found far inland. Three guns only were disabled. After it was seen that the garrison was leaving Fort Walker, a party was sent ashore with a flag of truce, and at 2.20 this party hoisted the United States flag on the fort. Fort Beauregard had received a

*Five 32-pdrs., one 6-inch rifle, fiv 42-pdrs. sea coast guns, one 10-inch Columbiad, one 8-inch Columbiad. Left flank: two 24-pdrs. Right flank: three 32-pdrs. Within the fort were two 6-pdr. field pieces.

†Five 11-inch guns, two 10-inch, twenty-one 9-inch, seventeen 8-inch, twelve 32-pdrs., and two 20-pdr. rifles, besides some smaller ones.

‡One 11-inch gun S. B., one 30-pdr. rifle, one 20-pdr. rifle, thirteen 32-pdr. S. B.

distant fire from the ships, and near sunset it was seen to be abandoned.

The army then disembarked and garrisoned the forts. No effort was made to cut off the retreat of the garrison of Fort Walker by sending gunboats up Scull Creek, the reason apparently being that the Admiral assumed that he would be too late; whereas the garrison did not get off the island till 1.30 A. M. of November 8, and then only by the help of the Confederate gunboats.

It appears that the original plan of attack was to land the army on the beach and make a combined attack, but the gale on the way down destroyed the means provided for disembarkation so that the navy made the attack alone.

The object and result of this action was to establish a great naval base inside of the captured forts for the maintenance of the blockade. To make this safe a large garrison thenceforth held the country as far as Beaufort, while gunboats patrolled the neighboring interior waters.

At Port Royal, owing to the absence on the part of the defence of any system of channel obstruction, the attacking ships were able to bring to bear their great superiority in artillery in such manner as pleased them.

But the reduction of the forts by the navy would have been profitless and would not have been attempted had there not been a supporting army present to occupy the neighboring territory and render the harbor available as a base for a far-reaching system of blockade.

The Passage of Forts Jackson and St. Philip and the Capture of New Orleans in 1862.

An Examination of the Reasons Controlling the Passage of Fortifications.

The Federal administration had begun its endeavors to control the Mississippi river in the summer of 1861, operating from the Ohio; and in the beginning of 1862, having established an effective blockade of the Gulf, it turned its attention to the capture of New Orleans. The control of this city would give a railroad and commercial centre, as a base for all operations further up the river, and so would facilitate cutting off the southwestern territory from the rest of the Confederacy.

Accordingly Admiral Farragut assembled at the mouth of the

Mississippi a force of five large sloops of war and nine gunboats, mounting in all 154 guns,* among which were enough pivot guns amidships to make either broadside, at will, ninety guns strong. There was also a flotilla of twenty mortar schooners, each carying one 13-inch mortar, the whole convoyed and handled by six gunboats carrying thirty guns. The lighter vessels, including the mortars, got to the head of the passes on March 18th, but the Navy Department had made a mistake in sending three ships of too great draft, and two of them did not get across the bar until April 8. The other did not try at all.

The War Department sent 15,000 troops under General B. F. Butler to co-operate with the fleet. The rendezvous was at Ship Island, which was also the naval base.

New Orleans is situated on the alluvial delta, about 100 miles above the head of the Mississippi passes, where the river debouches in several directions. By way of Lake Borgne, however, the city is much nearer to the gulf than by way of the river, and the country below is much cut up by practicable water courses, facilitating an advance upon the city from the gulf.

The operations in progress on the upper Mississippi convinced the authorities at Richmond that the upper river was more important, and therefore New Orleans was stripped of guns and troops which were sent north. Nevertheless, during the fall and winter of 1861-62, much was done by the local military and naval authorities to strengthen themselves. The plan of works adopted was to have an interior line of entrenchments around the city of about eight miles in circumference. This was for opposition to land attack. An outer cordon of forts combined with passive channel obstructions of various kinds was intended to prevent the enemy from getting its army by the help of light craft through the marshes and interior waterways surrounding the city. The main defences of the river itself were at Planche-mine Bend, about twenty miles above the head of the passes. This situation was the furthest below New Orleans at which it was possible to erect fortifications, but the river had built up its delta for many miles beyond into the gulf, so that troops might easily be landed on the shore and pushed across to the river just above the forts by a short march.

Any advance of an army from this point upon the city would

*Thirteen 11-inch S. B., two 10-inch S. B., eighty-four 9-inch S. B., twenty-three 8-inch S. B., eight 32-pdrs., one 100-pdr. rifle, three 80-pdr. rifles, one 50-pdr. rifle, sixteen 30-pdr. rifles, three 20-pdrs.

be necessarily confined to the narrow strip of high land bordering the levees, and therefore the Confederates provided a fleet of ironclad ships and river boats converted into gunboats to maintain communications with these forts and aid them in their resistance to a hostile fleet and to prevent any army from occupying and marching along the river banks.

As the attack was delivered by way of the river, it is not needful to refer further to the defences in the other directions upon the minor waterways except to point out that they were a necessary part of a well considered defence; as is shown by the fact that the English army approached the city from Lake Borgne in 1814. The defences at Planche-mine Bend consisted of two permanent works, Fort St. Philip on the left bank and Fort Jackson on the right bank.

Fort St. Philip is a little higher up the river than Fort Jackson, but they are separated only by the width of the river, about 800 yards. Fort St. Philip, a structure of earth and brick, mounted in barbette four 8-inch columbiads and one 24-pdr., and had a water battery above and another below it.

In all, the fort had forty-two guns commanding the turn in the river.*

Fort Jackson was a pentagonal casemated fort, mounting, with its water battery, sixty-seven guns.† Of the guns in Jackson as many as sixteen of the smallest could not bear on the river. The unusual height of the river made the forts wet and very uncomfortable quarters and gave the ships an equality in height of guns.

The total number of troops available for the defences of the city was only 3,000, and they were not under good discipline.

The floating defences were in two parts, that under the regular navy and the so-called river defence fleet organized among the river men, who were ignorant of war and of discipline, intensely jealous of the regular service, and refused to accept orders while professing readiness to co-operate. The regular force included one ironclad ram, the Louisiana, of sixteen guns, not able to move

*The upper water battery mounted sixteen 24-pdrs. and the lower one, one 8-inch S. B., one 7-inch rifle, six 42-pdr. S. B., nine 32s. and four 24s. There were also seven mortars of 8-, 10- and 13-inch caliber whose services amounted to nothing.

†In the casemates were fourteen 24-pdr. S. B. and ten flanking howitzers of the same caliber. Above these, in barbette, were two 10-inch and three 8-inch Columbiads, one 7-inch rifle, six 42-pdrs., fifteen 32-pdrs. and eleven 24-pdrs. Just outside the fort and below it was a water battery with one 10-inch, two 8-inch and two rifled 32-pdrs.

under her own steam, and with her battery not completely installed; one ironclad ram of small size, the Manassas, four gunboats with twelve 32-pdrs. and one 9-inch gun. The river defence fleet had six boats which did little.

An attempt was made to obstruct the passage of the river by a chain carried on heavy logs and anchored at short intervals, but the accumulation of driftwood carried it away after a time. Then a row of hulks was anchored across the stream, each being bound to its neighbor by several heavy chains, and this obstruction remained in position when the fleet arrived below the forts. Besides, there were a number of fire rafts to serve as illuminants as well as to fire the attacking fleet.

After all the United States vessels were across the bar, a party of surveyors properly escorted started triangulation in order to establish the positions for the mortars. Thus it was April 16 before the fleet anchored just below the position of the mortars. On the 18th the mortars opened fire. Fourteen had been placed below the turn, close to the right bank, concealed by trees where their distance from Fort Jackson was from 3,000 to 4,000 yards. The other six were under the right bank where they could see their target, but were also seen by the forts and received a hot fire in spite of a diversion by the gunboats. That night they moved to the other shore, and the bombardment was continued for several days. As the forts maintained a return fire, the gunboats took turns in sallying around the bend, firing a shot or two and dropping back before there was time for the forts to change target. Still they received some damage and one mortar boat was sunk.

The chained hulks in the river constituted an obstruction which the ships could not force in their passage up stream, and two gunboats were detailed to destroy it. Their masts were removed, and at 10 P. M., April 20, under cover of a very heavy mortar fire, they proceeded up the river. A heavy fire was opened on them from the forts, each grappled a hulk with the intention of destroying it by petards, but one tore adrift by the current and the other did not work her electric wires properly and broke them. A second attempt being made by one of the boats, she slipped the moorings of one of the hulks but went aground herself close under the fort. Her consort pulled her off and she then ran above the obstruction, and turning, charged it at full speed with the current. The chains snapped between the third and fourth hulks from the eastern shore. In the morning it was seen that the line of hulks was greatly disturbed, leaving a broad open space.

The Confederate military authorities now wished to have the Louisiana, with her powerful armored battery, take up a position below the fort to attack the mortars, but her captain refused, preferring to try to complete his ship before putting her under fire. The army and navy had been on good terms hitherto, but this divergence of views caused very bitter feeling, although it probably had little effect on the operations. The river defence fleet also did not co-operate well in sending down fire-ships, sending one at a time instead of several at once, and handling them badly in other ways. On the night of April 23, Admiral Farragut sent a pulling boat to reconnoiter the obstruction, and found it had not been renewed, and at 3.30 A. M. of the 24th the fleet started up, covered by the fire of the mortar vessels and the gunboats attached to them.

The fleet was in column in two divisions; the first division was to keep on the St. Philip side and the second division following was to keep on the other side. The forts opened fire as the leading ships passed the line of hulks, the fire-rafts were kindled and the Hartford, flagship, leading the second column, crossed the river and went aground in her effort to avoid a fire-raft. Thereupon the tug handling it pushed it against her and kindled the Hartford, a shot sunk the tug, the current carried off the fire-raft and the fire party extinguished the fire on board, so the flagship backed off the shoal and proceeded on. The Brooklyn, second ship in the second column, fouled the next to the last ship of the first column and ran into the hulks, broke through them, but lost her way and suffered heavily under the fire of the forts while getting her head up-stream once more. The ram Manassas, which had previously rammed another ship, now struck the Brooklyn, but failed to deliver a blow quite hard enough to sink her. The last three ships failed to get by, one being disabled and the other two fouled the obstructions.

The Louisiana above Fort St. Philip added her fire to that of the forts. Above the forts the fleet fell in with the hostile gunboats and a running fight followed, in which one Federal gunboat was sunk by ramming, while by sunrise nine Confederates were seen to be destroyed and two had found shelter under the guns of the forts. The Confederate naval craft had fought well, but the river defence fleet, in spite of its boasting, had done nothing.

The fleet anchored five miles above the forts, and on the 25th proceeded up to New Orleans, leaving two gunboats at that an-

chorage to protect the approach of the army, which landed from the Gulf outside at the nearest point to the gunboats.

The ships ran by the batteries of the inner line of defence without any difficulty, and anchoring off the city, they controlled all its approaches, as the river was up to the top of the levees, so that the ships commanded the narrow strip of high land between the river and the marshes.

Below, at the forts, the bombardment was renewed, but as Commander Porter was unaware of the Louisiana's disability, he feared to retain his mortar schooners and sent them outside to blockade the exits of the bayous and to assist in disembarking the army. The gunboats remained to deal with the Louisiana. On the night of the 27th, the garrison, realizing that it was cut off from the city and helpless, declined to prolong its resistance and mutinied. On the following day the forts surrendered, leaving General Butler free to occupy the city.

The forts had suffered little by the bombardment, and surrendered only because the loss of communication with the city was fatal.

In this attack, we see the defence attempting an active naval counter attack upon the hostile fleet by auxiliary craft, fire-rafts, before the naval assault was begun. It was not a strong blow, but the appearance of a counter attack directed against the ship herself and not against the crew's lives is noteworthy.

Moreover, although the navy held the center of the stage, so to speak, yet it was essential to have present a strong military force to effect a junction with the fleet after it had passed the forts so as to cut them off from the city. The accomplishment of this junction of the forces afloat and ashore, with its consequent isolation of the forts, was the sole yet ample justification for running by them.

A day or two later, the presence of the fleet off New Orleans threw the town into panic and caused it to be evacuated by its garrison, but really the navy was helpless to control matters, until, again, the army appeared and occupied the town under cover of the navy's guns, when the city became available to both services as a base for future operations.

Operations Against Charleston, S. C., in 1862-3-4-5.

ILLUSTRATING: 1ST, A MISTAKE IN THE MEANS OF ATTACK; 2D, A MISTAKE AS TO THE KEY OF POSITION.

The blockade of Charleston was established as soon as possible after the outbreak of the war, and after the capture of Port Royal the latter point served as a base for all operations along the coast, including those against Charleston.

In the summer of 1862 an attempt was made to push troops against Charleston by way of James Island, but the attempt to open the road by the capture of Fort Lamar by assault failed, and shortly after the forces withdrew. (It was by this route that the English proceeded to their siege of Charleston in 1780.)

Later in the fall of 1862 the Navy Department, inspired by the success of the navy against Port Royal and New Orleans, and anxious for political and sentimental reasons to occupy Charleston, began to make arrangements for the concentration of the new fleet of ironclads before Charleston with the expectation of easily overcoming the seacoast fortifications, and it persuaded the War Department to direct a force to aid the navy.

The Navy Department appears to have been brought to believe in the easy success of the ironclads by contemplating the facts that the wooden ships of Dupont had driven out the garrisons of the Port Royal forts, and that the ironclad Merrimac had destroyed wooden ships like Dupont's, and that the Monitor had repulsed the Merrimac. From all of which the conclusion was drawn that monitors could silence forts. In making this deduction, the Navy Department failed to consider that in the Port Royal fight the controlling factor was the superior volume of fire of the ships, while at Hampton Roads it was not the volume of fire but the comparative strength of armor which turned the scale. It is to be remembered that the old time wooden ships were for their period armored in exactly the same proportion as ships of to-day. That is to say, in both cases, at ranges greater than medium, the side of the ship was impenetrable to the projectiles of the day, and at Hampton Roads, light armor of the wooden ships was attacked by the heavy projectiles of the Merrimac, while their lighter projectiles were directed against her heavier armor. In such a case it is clear that success could not depend on the number of guns.

According to expectations, the fleet before Charleston was augmented by ironclad after ironclad as each was completed, and

early in 1863 Dupont tried his monitors as occasion offered against Fort McAlister on the Great Ogeechee river. The results were not fully reassuring as to the capabilities of the ironclads, and Dupont so informed the Department, which, however, remained set in its wish to capture the forts by the navy.

Accordingly Dupont attacked on April 7, 1863, with seven monitors mounting two guns each, and also the armored ship Keokuk of two guns, and the New Ironsides, a broadside armored ship of sixteen guns. The total number of guns in the fleet were theirty-two—three 150-pdr. rifles, twenty-two 11-inch S. B. and seven 15-inch S. B. guns.

The forts which the fleet attacked were grouped about Sumter in such a way as to concentrate their fire upon the channel at a moderate range from all of them. They mounted seventy-six guns: ten 10-inch S. B., three 9-inch S. B., two 7-inch rifles, nineteen 8-inch S. B., ten 10-inch mortars, and others, thirty-two in number, of smaller caliber. Stretching across the channel under Fort Sumter a line of floating obstructions was visible, and also a line of piles was visible farther up the river. Frequent reports had been received during the previous year that the obstructions were formidable and submarine mines were known to be employed in the neighborhood. Indeed, one of the monitors present had been very badly injured by a mine only a short time previous.

With the prevalent belief on board that it could silence the forts, the fleet advanced to the attack. As the leading vessel approached the obstruction, a mine lifted her, without injury, but as the Admiral was well to the rear where his ship was unmanageable, the leading ship did not take the responsibility of passing by the obstructions, which, indeed, the Admiral had never contemplated, but swung around, heading out as it was strong flood.

After a bombardment lasting less than two hours, the Admiral decided to withdraw with the intention of renewing the attack the next day. He found, however, that while the ships had lost few lives, they were very heavily racked and shaken, with turrets jammed and decks crushed by the fire they had been under, so as to require immediate repairs before undertaking further operations. The forts had fired over 2,200 projectiles, while the ships had fired less than 140. The forts had suffered little, but the ships were under repairs for sixty days or more.

This engagement convinced the participants that the ironclad ships could not stand up and hammer the forts into silence.

Although the experience of Port Royal had taught the Confederates much about designing earthworks, it is probable that the ironclads might have depended upon their armor sufficiently to venture to run through the gap in the obstructions left for the passage of blockade runners and pass Sumter. Also, it is possible that even a fleet of wooden ships with numerous guns, such as Dupont employed at Port Royal and Farragut on the Mississippi, might have run by, depending for their success upon beating down the forts' fire by their own superior volume of fire. The two reasons why this was not attempted are very instructive, one is a tactical matter, the other concerns strategy and diplomacy.

1st. After passing Sumter the ships would have found themselves in the center of the inner circle of fire from the upper forts and there would have been no place for stopping until they had passed the city and gone some miles up the Cooper river. Here they would have been cut off from supplies of coal, provisions and ammunition, because their army support was operating on the beach on the other side of the city, and could not cover their communications with the sea. As the ships could not be stripped of their crews to occupy the city, nothing could have been done except run out again before the coal and ammunition should be totally exhausted.

2nd. If in passing either way a ship or two should have been sunk, or abandoned after grounding under fire, and afterwards recovered by the defence, the efficacy of the blockade would have been impaired seriously, and the blockade was the point in regard to which the unfriendly feeling of Europe found its best diplomatic ground of interference. It was therefore unwise to run by the forts unless the army should also have established itself behind the outer forts.

It seems from all the evidence available that the key of the defences of Charleston lay at Fort Johnston and that James Island was not very strongly held at this time. The army, based on Stono Inlet, had been ready to move on Morris Island with its right flank supported by the fleet. Its proper objective was the occupation of James Island and Fort Johnson, and an attack on the city. Had this been carried out successfully, and a few heavy ships gotten by Sumter, or even a few gunboats brought along with the army, their communications would have been secure, while Sumter and Morris Island would have been cut off both by land and water and would soon have become untenable.

After the repulse of April 7, the Navy Department fell back

upon a combined attack upon Charleston and the closest co-operation was prescribed to both commanders-in-chief.

The unreasonably high opinion which every one except the officers of the ironclads continued to retain of their capabilities led General Gillmore, whose base was on the Inlet, to prefer an advance upon Sumter by the difficult way of Morris Island, where the ships would aid him by forming an advanced right flank, rather than by the easier way over James Island, where he would have less spectacular aid from the navy.

The army waited two months for the fleet to repair and another month while Admiral Dupont in sulky anticipation of being relieved from duty refused to commit the navy to any plan of attack which might not commend itself to his successor. During this delay the opportunity on James Island passed away, its defences were improved, the forts inside of Sumter as well as that fort itself, received additional guns and were strengthened. And besides, the torpedo defences of the channel were greatly improved.

Finally, in the latter part of July, 1863, General Gillmore began a siege of Fort Wagner. Batteries of enormous rifled guns were established and opened fire, while the fleet lent its cross fire from the sea, and the parallels were gradually advanced. After nearly two months' (fifty-eight days') work, including twenty-five bombardments by the fleet, Wagner's powers were very little injured, but the head of the sap had been pushed into the ditch of the fort, and it was evacuated by the help of the Confederate shipping which was in complete control of the interior waters. Although it had been evident for some time that Wagner could not be maintained and did not cover Sumter from bombardment, yet its defence was prolonged to occupy the Federals while the works on James Island were strengthening.

During the siege operations against Wagner it had been found possible to bombard Sumter also from the batteries before Wagner, and it was gradually reduced to ruins so that it was silenced on September 1, about two weeks after General Gillmore first opened on it. In this bombardment the ironclads also joined. At this date, September 1, Fort Sumter had lost its offensive value, but was retained as an infrantry post to watch and preserve the channel obstructions against boat attack.

During the summer and fall the increase in the activity of naval auxiliary craft is very noticeable. The Federal ironclads bombarded only when supported by the siege guns on shore, and the Confederate

ironclads did not undertake anything at all, but both sides sent out picket boats, and the Confederates began to use spar torpedo-boats, and submersible torpedo-boats, and contemplated night-boarding attacks by boats.

The Federals protected themselves by picketing, by net obstructions encircling their ships and by shifting their positions after dark, and attempted on the night of September 8 to assault Sumter, now without heavy guns, by a boat expedition. As the enemy had read the preparatory signal made during the day, they easily repelled the attack, as there was no surprise and some of the boats lost their way. Besides, knowledge of the most favorable point of attack was lacking to the assailants.

After the capture of Wagner and the north end of Morris Island, the Federals established new batteries to be used against the remaining harbor defences, but active operations did not begin again till the end of October. About the middle of October three heavy guns were remounted in Sumter. The calcium light was used about this time by the Federals at Cummings Point to detect the issue of torpedo-boats. The bombardments of Sumter, and boat operations against the mine fields, answered by torpedo-boat attacks on the blockading fleet, continued till General Gillmore was succeeded by General Foster in May, 1864. The monitors and Federal forts could not operate successfully against Sumter and the forts on Sulivan's Island, because the channel prevented siege works from being advanced against them. General Foster at once consulted with Admiral Dahlgren in regard to a change in the plan of the combined operations. He suggested advancing by the Stono river and James Island, or else transferring the army to the north side of the entrance, getting in rear of Sullivan's Island. It was decided to attempt to get possession of Fort Johnson and Battery Simkins on the James Island shore of Charleston harbor. If successful, the Federal forces would control the key of the whole position. It was the way the English had gone in 1780, although they went further and got behind the city. The plans for this operation involved five parts: (1) The navy was to attack Battery Pringle on the Stono river. This fort supported the right flank of the powerful lines across James Island. (2) A body of 5,000 men was thrown on John's Island, and (3) 2,500 were landed on the southern part of James Island to move north and entrench in front of the Confederate lines. (4) At the same time an expedition moved by the North Edisto to cut the Charleston and Savannah R. R. These operations were

undertaken on July 2, 1864, with the object of inducing the Confederates to weaken the garrison of Fort Johnson in order to hold strongly their southern line of works.

That night 1,000 men left Morris Island in boats to get on the beach east of Fort Johnson, land and assault the fort. The expedition delayed until day revealed it, and then it was badly led and failed. Eight days' fighting took place on the part of the combined forces; the monitors, gun and mortar boats operating against Fort Pringle, but they could not silence it, and a bridge prevented the ships from passing above the battery and covering the army's passage of the river in rear of the lines, so that the attack on the river side of James Island failed as well as that on the harbor side.

Finally, the Federals decided to withdraw. Another boat attack was made upon Simkins, but failed. The bombardment of Sumter continued during the summer and fall of 1864, but after September it was desultory, and the determination of the administration to attack Fort Fisher caused it to assume an inactive policy before Charleston.

But the advance of a great western army to Savannah and its subsequent movement through the Carolinas brought about the evacuation of Charleston in a rational and unspectacular way. As soon as Sherman threatened the railways into Charleston, its garrisons were withdrawn and its resistance of three years and a half collapsed, and the city was evacuated on February 17, 1865.

In this campaign we see the evils of a lack of understanding of the problem.

Admiral Dupont informed the Navy Department in the fall of 1862 that an army of 25,000 men moving by way of James Island was necessary for co-operation with him in the capture of Charleston, but the Navy Department had been swept off its feet by the popular enthusiasm aroused by the success of the Monitor in Hampton Roads and foolishly refusing to listen to the responsible professional opinion of the commander-in-chief of its choice, it insisted upon a naval attack alone. When its plan failed and it persuaded the War Department to devote a small force to co-operate with the navy, it still did not fully understand its problem, nor did the general commanding the troops.

In order to rest his flank upon the ironclads, General Gillmore selected a line of advance along the beach of Folly and Morris Islands instead of moving directly upon the military key of the situation at Fort Johnston. In this decision he was probably

misled by the belief that the newly-invented ironclads were so powerful that they would affect the fundamental principles of war, and he failed to perceive that the military key was just where it had been in 1776, when the English attacked Charleston in front, and failed; and in 1780, when they attacked by way of James Island and succeeded.

Operations Against Mobile, 1864-65.

In 1862, after New Orleans had been taken, Admiral Farragut urged the Navy Department to let him proceed to Mobile and attack the forts there, so that this very important harbor might be closed to the Confederates. The Department just then was more anxious to control the Mississippi by making a junction between Farragut's force and the squadron on the upper part of the river, and to make this ill-timed and unsuccessful attempt before it was possible for the army to co-operate, the enterprise against Mobile was delayed until the Confederates had built an ironclad force, which required the Federals to attack with ironclads. When the latter were ready the Navy Department's policy was to direct its new monitors upon Charleston, so the attack on Mobile had to wait till 1864.

Mobile was at this time, early in 1864, the only important harbor in the gulf open to the Confederate armies in the field; for although Galveston and Sabine Pass were also held by the Confederates, yet they were of little value owing to their position west of the Mississippi river, which was now controlled by the Federals.

It had been the desire of General Grant after the Chattanooga campaign to move against Mobile, and had he had his way the forces employed early in 1864 upon the unfortunate Red river expedition would have been sent to Mobile. Such a movement would have been made to co-operate with the great operations about Atlanta and Richmond, by controlling the railroads out of Mobile and by reaching out to join the army at Atlanta, thus dividing the Confederacy again as had been done by the seizure of the Mississippi.

The eccentric movement of the Red river expedition delayed even the minor operation of reducing the Mobile Bay entrance forts, since no troops were available to co-operate with the navy until the end of July, 1864.

By the time the Red river expedition was terminated Atlanta had been captured and the march to Savannah had been decided

upon. The movement upon Mobile, therefore, was not, as Grant had hoped a year previously, a step in a series of grand military operations such as the seizure of New Orleans had been, but, although an isolated achievement, it was nevertheless one of great importance, putting a stop to all serious blockade running on the gulf and crushing the enemy's hopes of an offensive movement by ironclads.

Captain Mahan describes the situation as follows:

"The city of Mobile is itself some thirty miles from the Gulf, near the head of a broad but generally shallow bay, which bears the same name. The principal entrance is between Mobile Point, a long, narrow, sandy beach which projects from the east side of the bay, and Dauphin Island, one of a chain which runs parallel to the coast of Mississippi and encloses Mississippi Sound. At the end of Mobile Point stands Fort Morgan, the principal defense of the bay, for the main ship channel passes close under its guns. At the eastern end of Dauphin Island stood a much smaller work called Fort Gaines. Between this and Fort Morgan the distance is nearly three miles, but a bank of hard sand making out from the island prevents vessels of any considerable size from approaching it nearer than two miles. Between Dauphin Island and the mainland there are some shoal channels, by which vessels of very light draft can pass from Mississippi Sound into the Bay. These were not practicable for the fighting vessels of Farragut's fleet, but a small earthwork known as Fort Powell had been thrown up to command the deepest of them, called Grant's Pass.

"The sand bank off Dauphin Island extends south as well as east, reaching between four and five miles from the entrance. A similar shoal stretches out to the southward from Mobile Point. Between the two lies the main ship channel, varying in width from seven hundred and fifty yards, three miles outside, to two thousand, or about a sea mile, abreast Fort Morgan. Nearly twenty-one feet can be carried over the bar; and after passing Fort Morgan the channel spreads, forming a hole or pocket of irregular contour about four miles long by two wide in which the depth is from twenty to twenty-four feet. Beyond this hole, on either side of the bay and toward the bay and toward the city the water shoals gradually but considerably and the heavier of Farragut's ships could not act outside of its limits.

"The Confederate ironclad Tennessee, on the contrary, drawing but fourteen feet, had a more extensive field of operations open to her, and from the gradual diminution of the soundings was able to take

her position at a distance where the most formidable of her opponents could neither follow her nor penetrate her sides with their shot.

"The plan of the operations was the same as those which had been successful on the Mississippi, that is, a combined military and naval operation. In both cases the navy was to plant itself across the enemy's line of operations, which it could do by running the gauntlet of his guns. It then remained for the land forces either to complete the investment (of the forts) and await their fall by the slow process of famine, or to proceed with a regular siege covered by the fleet. Without the protection of the ships in the bay, the army would be continually harassed by the light gunboats of the enemy and very possibly exposed to attack by superior force. Without the troops the presence of the ships inside would be powerless to compel the surrender of the works or to prevent their receiving some supplies."

The defences of the harbor of Mobile consisted of the following fortifications:

Fort Morgan:

10-inch S. B.	7
8-inch S. B.	3
32-pdr. S. B.	11
24-pdr, S. B.	10
8-inch rifles	2
7-inch rifles	2
6.5-inch rifles	7
30-pdr. rifle	1
24-pdr. rifle	1
3-inch rifle	1
12-pdr. howitzer	1

46 guns in all; of these 16 of the lighter guns bore on land.

Fort Gaines:

10-inch S. B.	3
32-pdr. S. B.	5
24-pdr. S. B.	2
18-pdr. S. B.	2
32-pdr. rifles	4
24-pdr. howitzers	11

27 guns in all, of which 11 bore on the land.

Fort Powell:

10-inch S. B.	1
8-inch S. B.	1
32-pdr. S. B.	1
7-inch rifles	2

5 in all, bearing on the sound and channels. The rear of the fort was unfinished.

Besides the fortifications mentioned above, a line of pile obstructions ran out from Fort Gaines to prevent light craft from passing over the shoal and a triple line of fixed mines closed the main channel from the end of the piling nearly to Fort Morgan, but a narrow passage close under the fort was left open for blockade runners. The deep water end of the mine field was marked by a buoy. Inside the forts were three wooden gunboats and the ironclad ram, Tennessee, the most formidable ship the Confederates had ever built, armed with four 6-inch rifles and two 7-inch rifles, protected by inclined armor of six inches and five inches in thickness. Her weak points were her slow speed and her lack of protection to her steering gear.

To make the attack Farragut had four monitors, mounting in all four 15-inch guns and eight 11-inch guns, and fourteen sloops and gunboats, mounting in all 161 guns from 11-inch S. B. to 12-pdrs. and from 150-pdr. rifles to 20-pdrs.; of the total of 173 guns about 100, including all the heaviest, could be fired on one broadside. The weight of fire of the ships' broadside was six times that of Fort Morgan or, as the lines were formed for the attack, it was between four and five times as heavy. Besides this attacking force two blockading divisions of gunboats of twelve ships in all remained outside, one south of Fort Morgan, the other, in Mississippi Sound, where it closed the westerly entrance to Mobile Bay.

By the end of July the final plan of the joint operations had been agreed upon between General Canby and Admiral Farragut. The first plan had been for the fleet to run into the bay and destroy the Confederate naval force and support the army, while the latter was to land and invest all three forts at once without executing any siege operations. General Canby was obliged to detach a force to protect Washington and consequently he had to reduce his share of the undertaking, so a second plan was adopted at the suggestion of the Admiral. It was decided to land the army upon Dauphin Island from Mississippi Sound under cover of the gunboats there, and August 4 was selected as the date for the army to land and the fleet to enter. One of the heaviest monitors, however, had not arrived from the

north in time and the Admiral felt obliged to postpone his entrance for twenty-four hours in order to have her with him to fight the Tennessee, but a little ahead of time, on the afternoon of August 3, the army under General Granger landed seven miles from the fort and immediately invested it. The attack on Fort Gaines was thus developed by the army, but owing to the inability of the navy to enter the bay simultaneously the enemy had all of August 4 to use his shipping to reinforce Gaines with troops and supplies; an opportunity he did not fail to improve.

By the morning of August 5 the Federal engineers had six 3-inch guns in position opposite Fort Gaines and at daylight on the same morning, the fleet weighed anchor for the attack. The monitors had been lying behind Sand Island; they came out in column with orders to precede the wooden ships and pass close to the fort and take the brunt of its fire, the wooden vessels were outside the bar and formed in column also, but they were lashed together in pairs so that if one was disabled her consort might pull her through, and also that they might gain facility in maneuvering. The column was formed with the heaviest ships leading. As the monitor column drew up with the fort the head of the column of wooden ships gained on it and while the two rear monitors slowed to lie by the fort and cover the passage of the wooden column, the other two were ordered to engage the Tennessee. The Tennessee and her gunboat consorts lay in line abreast, behind the torpedo line, and as the Tecumseh, the leading ship of the attack, drew close to the fort, it seemed to her captain that the passage to the eastward of the great buoy was too narrow and he was anxious to reach the Tennessee. He therefore put his helm over, crossed ahead of the other column and went to the westward of the buoy, just as the monitor was close to the Tennessee she struck a torpedo and instantly sunk. At this instant the Brooklyn leading and Hartford second ship had just brought their broadsides to bear and a tremendous fire seemed to have momentarily silenced the fort. The disappearance of the Tecumseh caused the captain of the Brooklyn to hesitate: he thought he saw a line of torpedo buoys in the fairway. He backed his engines, threw his ship across the bows of the advancing column, checking it and turning the fleet formation into a confused group with an inadequate fire, while the flood tide was sweeping every one upon the torpedoes and the fort reopened a vigorous fire.

The Admiral had caused the line of torpedoes to be examined on several reconnaissances at night and had not been able to find any, besides he did not think all would be efficient, so long had they been in the water. Therefore as the Brooklyn blocked the known safe pas-

sage, in spite of the loss of the Tecumseh, the flagship swung to port to clear the Brooklyn and took the lead, heading for the Tennessee. The Brooklyn warned the Admiral of the danger as he passed, but he made the heroic reply, become traditional in the navy—"Damn the torpedoes. Full speed." As the Hartford crossed the mine field the mines were heard rattling against her bottom but none exploded and she soon engaged the Tennessee with her starboard broadside. The other ships followed the flag, which drove the gunboats before it, while the Tennessee, after failing to ram or overtake the Hartford, turned and passed down the line of gunboats, trying to ram successive ships but unable to do so by reason of her low speed. When the last had passed the Tennessee ran under the guns of the fort. As the ships got within the bay, the gunboats cast off their heavier consorts and pursued the hostile gunboats. One was captured on her way to Mobile, the others took advantage of the concealment offered by a heavy rain squall to swing around and anchor under Fort Morgan. As the Federal ships passed inside, Fort Gaines opened on them with two heavy guns, but the field guns placed by the besieging army during the previous night promptly silenced these.

The fleet passed safely beyond the range of the forts, and believing the Tennessee had anchored, the U. S. fleet itself anchored. Farragut announced his intention of attacking her that night with the monitors. Barely had the ships anchored when it was seen the Tennessee was coming out from the fort. Breakfast was thrown aside and the Admiral led in an attack upon the enemy. She was rammed repeatedly by the wooden ships without receiving much injury, and their shot that struck her rebounded, while her own fire caused much slaughter among the wooden ships. Meantime the monitors stuck to her very closely, firing steadily; the smokepipe was shot away, reducing her low speed still more for lack of draft to the boilers, and the continual pounding began to shake off her armor, jammed the gun-port shutters, and cut the steering-gear. When quite unmanageable she surrendered.

It may be pointed out that when the Tennessee decided to leave the shelter of Fort Morgan for a fight to the finish with a superior force, she at the time interposed between that force and a weaker detachment outside. Had the Tennessee gone outside against the gunboats there, Farragut would have been obliged to run by the forts again to save his gunboats. In short, had Admiral Buchanan grasped the entire problem of the defense of Mobile instead of thinking only of a bull-dog fight with his former comrades, the Tennessee, before sacrificing herself, could have obliged the hostile squadron, or at

least a considerable part of it, to leave the bay, and thereby perhaps would have imperilled the situation of the Federal troops on Dauphin Island and certainly would have caused much additional loss to the Federal fleet. Indeed, when the Tennessee was seen to be leaving the fort and was erroneously reported to be going to sea, Farragut said he would have to follow her out.

During the entrance of the fleet, the gunboats in Mississippi Sound had been bombarding Fort Powell, and in the afternoon a monitor came up the bay and took the fort in reverse with great effect. That night the fort was evacuated and blown up. The next day a large force was set to remove the obstructions in Grant's Pass under the guns of Fort Powell and this being done the communications of the U. S. fleet were established with its base at Pensacola.

During the 6th, Fort Gaines was bombarded by a monitor and preparations made for a general bombardment the next day. A sand ridge along the southern side of the island gave cover to within 400 yards of the fort. During the 7th, the siege works were well advanced and four heavy guns brought up, so that the combined fire from the navy and the siege batteries would have taken all the faces of the fort in front, enfilade, and reverse. Instead of bombarding, negotiations for surrender were begun on the 7th and the fort surrendered the next day, August 8.

The troops were then moved across the bay on the 9th and landed on Mobile Point in Navy Cove at a wharf found in good order. It is to be noted how much better was the plan of operation than that at first contemplated, of attacking Fort Morgan by landing on the gulf side. This was due to the success of the earlier operations in isolating Fort Morgan before besieging it. In the afternoon the troops advanced to within 2,000 yards of the fort, and that night occupied the first parallel, about 1,400 yards from the fort, putting into it the army 30-pdr. rifles and such long-range guns as the fleet could supply.

Twice a day the monitors bombarded the fort from a point north of it and distant about a mile. The second parallel was opened on August 15; the following day twelve 10-inch siege mortars arrived, and on August 22, at daylight, the siege batteries of eighteen guns and sixteen mortars, and the monitors and the captured Tennessee opened fire. The fort did not reply. Fire broke out in the fort that night and it surrendered on the 23rd.

It was agreed by General Canby and Admiral Farragut that it was impossible to move on the city without more troops, which were not then available, and active operations were suspended for several months.

In these operations, the mutual dependence of the army and navy upon each other is very prettily illustrated, as well as the cordial agreement between the two services arising from the comprehension of each others' situation and necessities. It is to be noted as a point in tactics that, although the whole fleet crossed the mine field, yet this was not contemplated by the Admiral in formulating his plan, and the step became a necessary risk as the only way open to the Admiral of retrieving the errors and hesitations of subordinates. As at New Orleans, the accomplishment of the junction with the army behind the fortifications, whereby their communications were cut without losing his own, was Farragut's justification for running inside. Yet he could not have stayed there had the Confederate Admiral understood how to deliver his counterblow by attacking the Federal force outside, and so obliging Farragut to repass Fort Morgan in order to support his outer squadron.

The success of General Thomas at Nashville enabled reinforcements to be sent to General Canby and by the middle of March, 1865, he was ready with nearly 50,000 men to advance north through Alabama towards Montgomery, to overrun and control that State and make a junction with a force operating from the north. Most of Canby's army was on Dauphin Island and Mobile Point, but about a quarter was at Pensacola.

It was his intention first to sieze Mobile and, using that city as a base, he would have the railroad as a line of supply behind him. He arranged with the navy that it should so hold the line of the Mississippi that the opposition to his operations should receive no aid from across the river. The navy was also to support him and cover his transports in their movement about the rivers near Mobile.

The city of Mobile is about twenty-seven nautical miles north of Mobile Point, at the head of Mobile Bay on its west side. The city was very strongly defended on the west side, and besides, the line of approaches on that side of the bay was low and difficult. The advance, therefore, took place on the east side of the bay. To the east of the city of Mobile, at the head of the bay, is a delta of intersecting channels formed by the streams which empty there. The entrances to these channels were very strongly defended by channel obstructions and a great many mines, in whose employment the Confederates were very skilled. On the east side were two very powerful earthworks at Blakely and Spanish Fort. The direct channel to the city was obstructed and these obstructions were supported and covered not only by the fortifications of the city but by floating batteries. As the Federal navy could bring to the neighborhood only the light river moni-

tors, and the army could not aid it in an attack along this channel, it is obvious that a combined movement of the army and navy by the eastern approach to the city was the only practicable plan. Besides the defences mentioned above, the Confederates had three light draft ironclads and a gunboat operating in the rivers.

On the 17th of March the movement began. The army corps on Mobile Point marched by land to Dannelly's Mill, on the Fish river, about seventeen miles above its mouth. At the same time a brigade was sent to occupy Mon Louis Island on the west side and make as much of a display as possible.

On the following day as much of the corps on Dauphin Island as could be provided with transportation was shipped to Dannelly's Mill by water under convoy of the navy, and here a temporary base was established. On this day the navy reconnoitered along the east coast of the bay and shelled the country to drive out any hostile force, as well as to ascertain if any batteries had been erected there.

On the 19th, the Pensacola force also moved upon Mobile in co-operation. Bad weather now interfered with the march of the troops till the 25th, but on the 26th and 27th Spanish Fort was invested, although the movement met with sharp opposition. The Confederate ironclad was particularly annoying to the right flank of the attack and a battery was erected to reply to her.

The base at Dannelly's Mill was broken up, and a new one was established five miles below Spanish Fort and was protected by the navy from the Confederate ironclads. Wharves were built here, roads opened and the supply of the army secured.

After the 30th the fire of the batteries Huger and Tracy was diminished and the Confederate gunboats driven off by the fire of the rifled battery erected for the purpose on the bluff of Bay Minette.

The light monitors moved up towards Spanish Fort, clearing the channel as they went, but two of them and a wrecking boat were lost by torpedoes, on three successive days. On the 1st of April the column from Pensacola began to arrive near Blakely and completed the investment of that position on the 2nd of April. On the 4th of April the siege batteries opened fire against Spanish Fort.

It had been hoped that the navy would be able to get into the Blakely river and cut off the fort from the city, but the river could not be cleared fast enough for the ships to proceed. However, the navy was able to place and man some heavy guns as a siege battery. On the 8th of April, after dark, the lines were assaulted under cover of a bombardment and Spanish Fort was secured.

The operations against Blakely followed much the same course,

the Confederate gunboats giving considerable annoyance to the right flank of the besiegers. On April 3, a general assault carried the entire line at Blakely. The navy continued to clear the river of torpedoes and on the 10th it was able to shell the earthworks called Tracy and Huger. At night these works were abandoned by the Confederates and occupied by a naval garrison until the army could relieve it. The navy continued to clear the channels towards Mobile while two divisions of the army marched to the base at Starke's landing to be ferried to the other side of the bay south of the city.

On the 12th the army crossed and marched upon the front of the city, while the monitors appeared in the river in its rear, but the night previous the city had been abandoned by its garrison as the threat from two directions was one impossible to resist, and the mayor surrendered his government to the commanders of the two services.

The further operations in this district until the close of the war lack instruction for us.

In the second, as in the first series of operations, we are impressed by the good will and mutual support between the two services.

In a critical review of the campaign the prominent feature is the fact that the general plan being to establish a complete investment of the city of Mobile with the army in front of the city entrenchments and the navy in rear, cutting the water communications, it was necessary to aid the navy in its movement upon the key of the situation by the efforts of three army corps, the whole military force present, for a period of three weeks.

Admiral Thatcher had succeeded Farragut in command of the station and his attitude towards his own operations as revealed in his reports is an amusing one. He sends despatches to Washington enthusiastically telling how the army is getting on and how well the navy is doing dragging for torpedoes and clearing the channel in one place and bombarding the enemy in another, but he is unable to perceive the relation of each day's work to the progress of the campaign as a whole, so when he has finally reached the back of the city and finds the garrison has evacuated a few hours before, he merely regards the navy's hard work wasted, and writes an indignant letter to the Department, implying that the enemy was too ill disposed to the National Government to give him the satisfaction of bombarding the city. He was quite unable to realize that his hard work was fruitful, although unspectacular, and that by the seizure of the military key through that work, further resistance on the part of the garrison became foolish.

Attack on Fort Fisher, 1865.

AN EXAMPLE OF SUCCESSFUL CO-OPERATION.

Fort Fisher guarded one of the two entrances to the Cape Fear river, on which is situated the city of Wilmington, N. C.

By the fall of 1864 the Federal blockade of the southern coasts was so complete that only Charleston and Wilmington were carrying on any foreign commerce. The latter city was of great importance as the source of military supplies for the army of Northern Virginia, but owing to the unusual condition at the mouth of the river, the navy alone could not efficiently close the entrance, although from thirty to forty vessels were constantly before it. This was owing to the double entrance at Cape Fear, between which the Frying Pan Shoals extended many miles to sea, requiring two distinct squadrons to close the two entrances. Fort Fisher defended the main entrance and was so placed as to rake the ships approaching the coast from seaward by the channel through the shoals. This was an error in locating the fort, since the engineer did not fully consider the hydrographic features. The outer bar was just abreast the fort, with a deep pocket just outside, and therefore the big ships lying outside the bar could bombard at close range. Had the fort been on Federal Point, no big ships could have gotten near it.

Obstructions had been duly placed in the channel, but they were so far to the rear of the fort that there was no reciprocal support, and thus the advanced position of Fort Fisher decided the plan of operations. Upon the request of the Navy Department General Grant agreed to aid in closing the river to blockade runners.

In December, 1864, 6,500 troops under General B. F. Butler were detailed and the expedition set out, and arrived off Fort Fisher on December 18. The weather was not favorable for landing on the open beach and on the 20th many of the transports had to run to Beaufort, N. C., to renew their supplies. The gale caused much confusion, but by the 23rd the weather was good and although the transports had not returned Admiral Porter thought it necessary to improve the opportunity and begin the attack. On the night of the 23rd an explosion vessel was sent in and exploded as near the fort as possible but did no damage. On the 24th the bombardment by the fleet began. At night only a few transports had arrived and the fleet withdrew out of range. On Christmas day almost all the transports were up and it was decided to land under cover of a bombardment. Seventeen gunboats were detached to cover the landing and assist with boats.

The landing began at 2 P. M., about three miles from the fort, and about 5 o'clock, when half the troops had landed, General Butler decided to return to Hampton Roads, on the ground that a reconnaissance showed an assault to be impracticable. A number of stragglers, however, actually had been inside the fort, meeting with no opposition. The weather becoming rough after dark and remaining so, it was necessary to leave 700 men on shore for two days under cover of the guns of the fleet, when they also were re-embarked without incident.

Admiral Porter informed the Navy Department that General Butler's presence was the only cause of failure, and after inquiry, General Grant sent back the same troops, somewhat reinforced, with Major-General Terry in command. The total force, including two field batteries, was 9,600 men. Its embarkation began at Bermuda Hundred on January 4 and was completed the following day. No horses, wagons, ambulances nor artillery caissons were taken, but 150 extra rounds per gun in packing cases were provided.

After embarking, General Terry was informed by General Grant of the object of the expedition and that a siege train of twenty 30-pdr. rifles, four 100-pdr. rifles and twenty mortars would follow immediately for use in case a siege should be necessary.

On the 6th the transport fleet sailed from Hampton Roads, and on the 8th it began to arrive at Beaufort, where the vessels needed repairs and supplies. Those vessels which entered Beaufort harbor could not get out till the 12th on account of high seas on the bar, but arrived that night off Fort Fisher.

At 4 A. M., January 13, the inshore division of gunboats stood close in shore between five and six miles above the fort, where Masonborough Sound and the marsh behind it prevented any opposition to landing. The transports fromed a parallel line 200 yards outside and another division of gunboats took position farther north to prevent any water counter-attack by the sound. At 8 A. M. 200 naval boats were sent to aid the transport's boats, and at 3 P. M. nearly 8,000 men with forty rounds of ammunition, nine days' provisions, 300,000 rounds of reserve ammunition and entrenching tools were on shore without accident except some supplies spoiled. Supplies could be landed only on an average of two days per week, owing to the weather. The opposing force consisted of 1,800 men in Fort Fisher and a field force of 6,000 men in observation with headquarters at Sugar Loaf. Besides there were gunboats on the river.

On landing the United States forces threw out pickets who ascertained the presence of the field force which had not been known

previously. The guns of the navy prevented these troops from approaching the fort and placing themselves between it and General Terry.

After dark General Terry moved along the beach to a point about two miles from the fort and threw up a line of entrenchments from the sea to the river to protect his rear. This line was defensible by 8 A. M. of the 14th. On the morning of the 14th the field artillery was landed and most of it placed on the river end of the entrenched line, as the navy could cover the sea flank, and had been asked to do so, and also to cover the landing of the supplies on the beach. A brigade was sent towards the fort to reconnoiter and an outwork 500 yards from it was taken and turned into a defensive line. A skirmish line was advanced to within 150 yards of the fort and a line of rifle pits was dug there.

The Confederate gunboats were annoying to the U. S. troops and a battery of 30-pdr. rifles was begun on the river to drive them off.

It is now time to describe Fort Fisher. It was a very powerful earthwork with a sea face of 1,300 yards and a land face of 480 yards.

The sea face mounted twenty-two guns,* and the land face had twenty-four guns.†

The very large bombproof traverses of the fort became an important feature in the assault. A loopholed palisade with banquette ran in front of the land face from sea to river and in front of the palisade was a line of ground mines electrically controlled from within the fort.

At 7.30 A. M. on the 13th, the four monitors and the New Ironsides were sent in to draw the fire of the fort to see where the guns were. The fort soon slackened fire and replied with only one gun. After the troops were ashore, the wooden ships moved to firing position about 3 P. M. and a heavy fire was maintained till after dark, when the wooden ships drew off, leaving the monitors to fire slowly during the night. On the 14th, the small gunboats with 11-inch guns were sent to attack the land face to dismount the guns there, while a rapid fire from the lighter broadside of the Brooklyn was maintained to keep the guns from being manned.

This plan was successful and under its cover the army advanced and entrenched.

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*One 8½-inch rifle, one 8-inch rifle, two 7-inch rifles, five 6⅜-inch rifles, eight 10-inch S. B., five 8-inch S. B.

†Three mortars, two 10-inch S. B., five 8-inch S. B., seven 32-pdr. S. B., one 24-pdr. S. B., one 7-inch rifle, four 6⅜-inch rifles, one 4½-inch rifle.

By this time the Confederates had decided that for them to attack the United States troops, entrenched and covered as they were by the navy, would only lead to disaster, and that as the weather rendered the landing of supplies very uncertain, the attacking force could not wait to besiege, but must assault. Therefore, on the night of the 14th an addition of 500 men was made to the garrison by means of the Confederate navy which still preserved water communication with the fort. This gave a force of 2,300 men to defend a line 500 yards long. On the afternoon of the 14th, General Terry and Admiral Porter held a conference at which it was decided that the uncertain communications through the surf rendered an assault necessary and that the navy must open the palisade the next forenoon. It was arranged also that the navy should land 1,600 bluejackets and 400 marines to attack the sea bastion while the army was to attack the river bastion and sally port. The disembarkation of the siege train and also the fire of the monitors began early on the 15th and continued all day. The fleet moved in to bombard later in the forenoon and opened a heavy fire on the fort at about 11 A. M. It numbered on this, as on the other days, about forty ships in the firing line, with about 400 guns, of which about 260 were available on one broadside.* The bluejackets with cutlasses and pistols and marines with rifles were landed in the forenoon and advanced along the beach to a point 600 yards from the fort, where an entrenchment was thrown up and afterwards a line of rifle pits was dug within 200 yards of the fort by the bluejackets and occupied by the marines. Here they were under fire of grape and musketry from the fort, and the premature explosions of shells from the fleet also annoyed them. Owing to the lack of time between landing and the hour of attack, the small parties from each ship were deprived of an opportunity of forming themselves into a cohesive organization. It was not even known who was in command until the bluejackets were about to charge, and so the leaders could not arrive at an understanding in regard to the duties of the different detachments nor communicate with General Terry in time to arrange for proper co-operation. Squadron general orders prescribed that the sailors should "board the fort on the run in a seamanlike way." The Admiral's order, dated on the morning of the assault. provided a much more rational plan, but it does not seem to have removed the impression made on people's minds by the generally circulated previous order which had been public for a day or two.

*Table of fleet's guns available on one broadside: eight 150-pdr. R., twenty-six 100-pdr. R., four 60-pdr. R., thirty 30-pdr. R., nine 20-pdr. R., ten 15-inch S. B., twenty 11-inch S. B., one hundred and twenty-eight 9-inch S. B., twelve 8-inch S. B., thirteen 32-pdr. S. B.

The fire of the fleet was continued till 2 P. M., at which time the fort was silenced, the palisade well opened and, as afterwards learned, the controlling wires of the mine fields were all cut. The signal for the assault was given at 3 P. M. on the steam whistles of the fleet, and both soldiers and sailors moved to the assault. The tide being low the crest of the beach offered cover and the leaders of the bluejackets got beyond the palisade and even reached the parapet, but they had few muskets among them, and the marines did not maintain a good fire from the rifle pits, so the attack was repulsed, although a number of men remained under the palisade until dark.

During the bombardment most of the infantry of the garrison had been at a distance behind the fort, and when the assault was made the greater portion of the force was sent forward to the sea angle to repulse the sailors, the consequence was that by the time these were driven back, the army, advancing under cover of the hill and woods on the river side, had established itself on the other flank of the work. The huge traverses afforded a series of defensive positions from which the Confederates were driven successively by most desperate fighting. The fleet continued its fire upon the sea face of the fort. One of the guns on this face had been traversed and was firing grape on the assaulting force. It and some field pieces were disabled by the monitors, whose fire also shook the infantry of the defense. Finally, the defeated bluejackets and marines were sent to hold the entrenchments to the north while the fresh soldiers there were withdrawn and sent into the fort to relieve the weary troops and continue the assault. The Confederate field force attempted a diversion by attacking these northern entrenchments, but as soon as its skirmishers moved forward, a division of gunboats opened fire and restrained any further effort on its part. At about the same time the fleet shifted its fire to the beach south of the fort to prevent possible reinforcement coming across the river by way of Fort Buchanan. The new troops carried the fort with very little resistance and by 10.30 P. M. the action was over.

The following day the navy found and buoyed the channel, took up the torpedoes in it and pushed light draft gunboats over the bar. As soon as three gunboats were inside the bar the Confederates prepared to abandon Smith's Island and all the forts about the other entrance. On the night of the 16th they were blown up. The navy then took possession of them and put a heavy force of gunboats in the river.

Thue Lee's army was cut off from Europe; but by this time General Sherman had started north from Savannah and it was neces-

sary to supply him by the same route which Lee had used. With this object, Major-General Schofield, with 21,000 men, was transferred from Tennessee to the Chesapeake and thence by sea to the Cape Fear river, in order that the large force of nearly 40,000 men thus assembled there and at New Berne, N. C., might make Sherman certain of supplies and support as he approached the army of Joseph Johnston. The Army of the Ohio arrived in the Cape Fear river February 9 and landed between Fort Fisher and the lines two miles north of it held by General Terry's forces. The Confederate forces under Hoke still held their entrenched position between Masonborough Sound and the river opposite to Fort Anderson. On the west side of the river the Confederate line extended from Fort Anderson to a large swamp three-quarters of a mile distant. Both these positions were secure against direct attack. On the other hand, General Terry's position was supported on both flanks and in the rear by the gunboats, besides which he held Smithville and Fort Caswell.

Since the navy had moved inside the river, it had been waiting for the arrival of light draft monitors to attack the river forts, and in the meantime had cleared out torpedoes as far as Fort Anderson. The obstructions under the forts were of heavy cob work and stone and were impassable without reducing the forts. On February 11 General Terry's line was advanced, supported by the gunboats, and entrenched so far to the front as to require the enemy to hold his lines in force. Arrangements were then made to attack the right flank of the Confederate eastern wing with the gunboats, while two divisions were marched up the ocean beach to a point beyond the enemy's position, where they were to meet and receive a flotilla of pontoons and navy boats and haul them across the beach to the sound and then cross the sound in them. Bad weather delayed the execution of this plan, so on the night of the 14th of February the pontoons were sent up the beach on their wagons. An unusually high tide delayed the pontoons, so that the crossing could not have been complete before daylight, whereupon the attempt was abandoned. The two divisions crossed to Smithville instead, whence, on February 17, they marched against the Confederate position at Fort Anderson and entrenched opposite it on the morning of the 18th. On the 17th one monitor and four gunboats bombarded Fort Anderson and continued the bombardment the next day at a shorter range and with ten additional gunboats. At 3 P. M. the fort was silenced but the gunboats continued firing till dark.

After the entrenchments were defensible, a detachment was left to hold them, and the main body marched around Orton Pond to

fall on the rear of the fort, but during the night of the 18th-19th it was abandoned and the United States flag was hoisted on it at daylight. The navy at once began to clear the river of torpedoes. One division of the army marched to Fort Anderson and was ferried across Cape Fear river by the navy, while the other continued north and encountered strong fortifications on Town Creek, a stream with all bridges destroyed and no ford for fifteen miles. Between the river and the road were swamps. This position was turned and attacked by a march through the swamp, after which the United States forces were directed on the communications of Wilmington. As soon as the Confederate forces on the eastern side of the river learned that Fort Anderson had been abandoned and that the river was open to the gunboats, they abandoned their own lines and fell back to a point about five miles below Wilmington.

The navy sounded and buoyed the channel and got the gunboats up to the obstructions and earthworks at the mouth of the Brunswick river on the 20th and opened fire. That night the gunboats were attacked by 200 drifting torpedoes, but the picket boats destroyed them with musketry fire. Only one vessel was injured by them.

Late on the 21st the gunboats and army made a simultaneous attack on the group of forts below Wilmington, but without success. On the 22nd, it was found that the progress made by the western column of troops towards the rear of the city and the railroad had brought about its evacuation and both columns occupied it.

As the railway was without rolling stock and the army without wagons, one corps was transferred by sea to New Berne and both corps then advanced from Wilmington and New Berne to Goldsboro, where they effected a junction with General Sherman on April 24, opening a new base for him and bringing a reinforcement of 25,000 men.

In the operations from Fort Fisher to Wilmington, both the Federal Army and Navy understood the part that was proper to each, and the result was complete harmony between the two services, accompanied by success. The situation was such that, alternately, each supported the other's movement and neither could move up the river much in advance of the other, since the Confederate ships and field forces were supporting each other in a similar manner, although the latter combination was not formidable when properly attacked by the army and navy in co-operation.

W. L. Rodgers,
Lieut.-Comdr., U. S. N.

"A BALLAD OF THE WHALER."

This is a song of the open seas,
Of the pale blue berg and the nor'west breeze,
Of the porpoise rolling in oily ease,
  And the spout of the great sperm whale,
Where loftily over the king duck flies,
And barren and black do the cliffs arise
And deep in the haze of the auroraed skies
  The midnight sun is pale.

In old Nantucket my childish hand
Waved to the fishers from the land;
I watched the whalers outward stand
  By the point of the headland low;
And as I followed the distant sail,
Over and over I heard the tale
Of many a chase of the great sperm whale
  In the seas of the ice and snow.

Those were the stories that I knew,
As ever the years of childhood flew,
Unto the power of youth I grew,
  The beckoning ocean by;
I learned to hand and reef and steer,
I caught the skill of the harpooner,
I longed for the whaler's wild career,
  And forth to the chase went I.

With a frolic some sou'west gale behind
Saucily tossing us down the wind,
Lower and lower the coast declined
  And up for the north we steered,
Swinging along with a windy sky,
Till the air grew cold and the sea rose high
  In ponderous calm appeared.

Others may sing of the jungle wild,
Of the tusker king to the pits beguiled,
Of the tiger pawing the stolen child,
  And the lash of the angry tail;
To a mightier, savager prey went we,
In the howl of the wild waves' jubilee,
To the chase of the monarch of the sea
  In the home of the great sperm whale.

Hither and yonder day by day,
Searched we the waste of the misty bay,
Where many a porpoise leaped in play,
  But never a breaching whale,
Till cried the skipper: "An empty hole,"
But far to the north the schools patrol,
And I'll follow the flight to the white North Pole,
  Or ever the chase shall fail.

And up the perilous north we cast,
And once in the arms of the icy blast
A shivering bear went drifting past,
  Pacing a lonely floe;
We heard the cubs of the walrus squeal,
And, soft eyes looking toward our keel,
The sleek head turned of the gentle seal
  As he wistfully watched us go.

By the caving glacier's thundering fall,
By the glimmering ice blink over all,
By the berg that lifted a gleaming wall
  And the peaks of the endless snow,
Our course we followed and on we sped
Over the desolate seas of lead,
Till the lookout called from the high masthead,
  Thar', thar', she breach and blow.

We manned the falls with a rousing shout,
And the ship hove to, and the boats put out
To the maddening mark of a single spout
  Like mist on the misty sea;

To his cumbrous side and monstrous head
The keen harpoons like the lightning sped,
And sounding as down in the deep he fled,
  In the froth of his wake went we.

With a troubled breath to the top he rose,
With a dreadful front to his scattered foes,
And his flukes struck out with their mighty blows,
  And his great jaw lifted high.
He lashed like a monster flail,
And the drowning form and the splintered rail
Told well of the strength of the great sperm whale,
  Who kills ere he can die.

But ever his life blood ebbed away,
And a black tide rose with his spouted spray,
And his fins rolled upward and dead he lay
  On his throne in the northern main.
And back to the ship we towed our prize,
While the sea gulls circled with mournful cries,
And the black shark rose with his hungry eyes
  To follow the funeral train.

We gave to the monarch a stately pyre,
With a column of smoke and a pillar of fire,
And the captain's voice was his funeral choir,
  And his mourners were the tars;
And the night came down and the day passed by,
And the smoke of the burning rose on high
In the pale, pale glow of the polar sky
  And the light of the midnight stars.

ROWAN STEVENS.

DISCIPLINE.

Of the various definitions of the word, given by Webster in the dictionary in common use, two—one treating it as a noun, the other as a verb transitive—are most applicable in the treatment of it in this instance.

The first defines it as a noun. "Training to act in accordance with established rules; accustoming to systematic and regular action; drill."

The second, treating it as a verb. "To accustom to regular and systematic action; to teach subordination to; to drill."

It has been said that an army without discipline, is but an armed mob; and the expression is correct. But not alone in an army is discipline necessary. It is at the foundation of all society, all law, all order. It is necessary in the family, the school, the shop, the court of justice, and along the lines of travel and traffic. There must be obedience of the many to the few in all these branches of our varied life, or chaos comes, without delay.

But of all these, military discipline must, from the very nature of its necessity, be the most rigid. The need of its exercise demands prompt action; and the action of some one individual, who, for the time being, is entrusted with the right to administer it, must take the place of the parent, the teacher or the judge. While governed by legislative enactment, by regulations, or orders from superior authority, which are supposed to cover every possible case, much of the mode of its administration must depend on the make-up of the individual to whom its execution is entrusted.

And so much do men differ in intelligence, in modes of thought, mental characteristics, state of health, patience and use of delegated authority, that to insure exact and even justice by which no man shall be wronged, and all similar cases receive precisely similar treatement, is an impossibility.

On this, one eminent authority says: "It should not be forgotten that, human nature being what it is, there is hardly a man living to whom it would be wise or safe to entrust for long, any large measure of discretionary power to punish his fellow men."

One officer acts upon the presumption that strict discipline demands that those under his command shall not be allowed to think for themselves in anything connected with their duties, or to do anything which may be pleasing to them, and be compelled to do everything under his control or in his power that is not. This may be called the discipline of repression, but while it may be satisfactory to the person who enforces it, it speedily antagonizes every one of whatever rank or grade, upon whom it is imposed, and never fails to defeat the aims of justice and to injure the service.

What is called the discipline of danger becomes of force when the body of men coming under its control, awed by the difficulties or dangers of the situation, instinctively surrender to the leadership of some one of their number, and obey his orders because they recognize his ability, and trust to his judgment. Another phase of it is found, when, in an enemy's country, men know that discipline and obedience to orders add to their safety.

There is still another sort of, or attempt at, discipline, not entirely absent from the army, where the officer, whether in command of large or small bodies of troops, in his perhaps well-meant efforts to enforce that of the strictest degree, "naggs" (to use a common expression) every one subject to his orders. If a company commander, he is in his company squadrooms half a dozen times daily, and always finds something wrong there. His non-commissioned officers find life a burden, and the privates spend much of their time in the guardhouse; mainly for trifling infractions of what he calls duty; and which, with more judgment and less temper in the make-up of their commander, might have been easily settled by timely advice, or at most a reprimand.

If a post commander, he sends for his officers at most inconvenient hours, and calls for explanations as to why Lieut. Smith wore his cloak over to roll-call, or why his dog was loose on the parade the previous day; and he surrounds the granting of the smallest privilege with so many and so annoying restrictions, that, rather than submit to them, the would-be applicant foregoes his pleasure and nurses his wrath within the walls of his quarters.

Nor is the misuse of authority confined to the wearer of straps. The soldier who has in his box his warrant as Sergeant or Corporal, often finds himself clothed with a little brief authority, and the less he is fitted to exercise it, the more he generally makes it felt; and the private who may incur his displeasure, perhaps innocently, finds that the wearer of stripes "has it in for him," and his case will often not be benefited by an appeal to his company commander, for, though that

officer may—doubtless will—investigate, he cannot be always present, and the complainant finds himself "out of the pan and into the fire."

We are all aware that, careful as may be the recruiting officer, many undesirable men get into the ranks, and a percentage of them can only be governed by a discipline which has in it a large element of rigor and force, and they should be taught to feel that it can be used if necessary. But it is a question, if men are not often made defendants before courts-martial, when, without any infraction of law or breach of regulations, their cases could have been satisfactorily settled in the company orderly room. If, after trying this method, the offender is found incorrigible, then get rid of him at the earliest possible moment.

No officer of twenty or twenty-five years' service can fail to have noted that as a class the enlisted men of to-day are much better and easier controlled than were those with whom he was first brought into contact, and the facilities for ridding the service of bad material have been much improved within the last score of years. A more intelligent class, they can generally be governed by milder methods, and the life of the company commander has in it less of harassing worry and "wear and tear." Most of them are amenable to reason, or at least an attempt to reach them in that way will not be time lost, for it will give the officer an opportunity to study his man and determine how he should be dealt with in future.

A recruit comes into the service, fresh from the farm or the shop, with no idea of what will be required of him, but really anxious to do what is right and make a good record. If the requirements of the service are carefully explained to him, and any little infractions of regulations and customs of service reproved calmly and carefully by those under whose charge he may be, he will probably get along well, and give little trouble during his enlistment. To use a horseman's language, "many a colt has been ruined by sudden use of a sharp curb, when the weight of a light rein would have been all that was required." If, after a fair trial, the curb *must* be used, but few trials will be needed to determine whether the offender should or should not be kept in service; if incorrigible let him give way to another, who may do better.

It is interesting to note the different degrees of importance attached to the same offense, by different officers. One cares but little about drunkenness in his company, so long as the offender does not disturb the peace, and is ready for duty when called upon, but punishes absence from roll-call with all the confinement the law allows.

Another holds to an exactly opposite idea. One holds that the first sergeant, like the king by divine right, can do no wrong, and his utterances, like those of the Pope, are infallible.

This idea makes the life of the company commander an easy one, for no man will complain twice to him, suffer as he may; but when things get beyond what he thinks he can endure, he disappears; to be added to the great army of deserters, and spend the next two or three years looking over his shoulder for the party whom he fears is hunting for him.

A full guard house or long list of court-martial cases is not a fair criterion by which to judge of the excellence or laxity of the discipline of a post or company, neither should the officer be censured who prefers to have the one unoccupied, the other unwritten.

When once behind its doors as a prisoner, the average self-respecting recruit feels that his character has contracted a sort of stain, difficult to efface, and a second or third incarceration not only adds to it, but makes it indelible; and as familiarity begets contempt, he soon cares but little about it, unless accompanied by a stoppage of pay; and over that he has, by that time, gotten to brooding, as being an act which robs him, to assist in building up a home for other men, when superannuated, a proceeding which seems now entirely unnecessary. I believe that a change in the law concerning the disposition to be made of forfeitures of pay, so that all those imposed for offenses which, by their commission, cause extra work or duty to fall upon other members of a company or garrison, should be turned over to the officer commanding the organization; to be by him disbursed for the benefit of the enlisted men of the command, would be a beneficial act, and conduce to the discipline of the beneficiaries.

In the armies of Continental Europe, whose service is compulsory, and opportunities for desertion few, and the average intelligence of the rank and file much less than in this country, discipline of the strictest character, even verging on the iron quality of that of the Great Frederick, can be imposed, and may at times be found necessary, but with the migratory character of our population, the feeling that the deserter is only breaking a contract, the continuance of which has become irksome to him, an act which in the minds of most of the non-military part of the people, carries with it no moral turpitude, would, even if such discipline was thought necessary, render its maintenance impossible, except as it was temporarily brought to bear upon a kaleidoscopic force, changing with the changes of the seasons, if not with those of the men.

Good order must be maintained, and prompt obedience to orders

exacted, but all which goes beyond that, is superfluous. The officer who finds himself called upon to command, should, as far as is possible, divest himself of all personal feeling when a case for discipline comes before him, and act judiciously as well as judicially, with a leaning toward mercy, unless the culprit is an old and hardened offender, or the case is a very flagrant one; and in a very large percentage of cases, that discipline will be found most effective, which produces the least friction, and is maintained most quietly. Thought cannot be forbidden, and the characters of those in authority, no matter of what grade, are soon understood by those under their command.

No good soldier will complain over justice, quietly administered, but all will be quick to note acts which are not based upon that principle, but are the outgrowth of caprice or passion.

He is not fitted to command, who has not himself learned to obey, and he who does not submit to discipline himself, cannot enforce it where others are concerned. It can do no harm if "put yourself in his place" is more frequently thought of when an alleged offense is to be examined into, and the result of such self-examination would, it is believed, cause a material diminution in the labors of courts-martial and reviewing authorities.

HENRY ROMEYN,
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STRATEGY AND TACTICS OF THE RUSSO-JAPANESE WAR.

NINTH PAPER.

July 1-August 15, 1904.

THE MILITARY SITUATION.

THE general situation, about July 1, 1904, was described in sufficient detail in the preceding paper.

The I. and II. Japanese armies had effected a union after the battle of Wafangkon, and their lines extended along a front of 125 miles, from Paliling Pass (about 15 miles northwest of Saimatsi, or about 45 miles north of Fengwangcheng) on the northeast, to Senuchen, or Siunguchen, on the railroad, near the coast (about 35 miles south of Inkon, or Yinkow, the seaport of Newchwang), on the southwest.

The Russian field army had a parallel position, extending over a front of 100 miles, from a little north of Kaitchou, or Kaiping, on the railroad, on the southwest, to Fenchuiling Pass (about 10 miles west of Paliling Pass), on the northeast.

The Japanese were slowly advancing to gain possession of the passes. Before the end of June they had gained possession of the Paliling, Fengchuiling, Moduling, Watseling, Daling, Chipauling and Fengsinling Passes. Early in July the II. army advanced to Kaichou, or Kaiping, on the left, while the I. army moved westward with the extreme right, about 15 miles, the next subdivisions to the southwest occupying Lanholing and Siaokaoling Passes.

At Port Arthur the Japanese lines had advanced to the line extending from Yingchengtzu, on the railroad about 16 miles northeast of Port Arthur, to Siaobindao, on the south coast, about 12 miles east of Port Arthur.

Early in July, however, they advanced on the south to the Lungwangho.

The Russian fleet in Port Arthur had lost since the opening of the war, the following warships: Petropavlovsk, Bogatyr, Korietz, Variag, Boyarin, Yenesei, besides a number of gunboats, torpedo-boats and destroyers.

The following vessels had been injured, but repaired: Czarevitch, Poltava, Novik, Pobieda, Pallada, Askold, Retvizan.

These, together with the Peresviet, Sevastopol, Diana, Bayan and 12 torpedo-boats, constituted the Russian fleet remaining in Port Arthur.

On July 6th all naval reserves of Russia were called in for active service to fill the complements of the Baltic fleet, except those of Orenburg and Finland.

The Japanese fleet had lost the Hatsuse, Yoshina and another cruiser, besides at least 2 torpedo boats.

SECOND RAID OF THE VLADIVOSTOK SQUADRON.

The Vladivostok Squadron made another cruise to the straits of Corea early in July, capturing the Japanese steamer Cheltenham (purchased from England), which was found loaded with railroad material, and sent her to Vladivostok for condemnation.

At the same time the Russian auxiliary cruiser Lena, with a division of torpedo boats, left Vladivostok for Gensan (on the east coast of Corea) and destroyed a coast-wise steamer and a sailing vessel there.

The squadron returned to Vladivostok on July 4.

THIRD RAID OF THE VLADIVOSTOK SQUADRON.

On July 19th Rear Admiral Yessen, with the Rossia, Gromoboi and Rurik, again left Vladivostok, passing through Tsugaru Straits (between the Japanese Islands of Nippon and Yesso, or Ezo), thence along the east coast of Japan as far south as Yedo (or Tokyo) Bay, keeping from 50 to 75 nautical miles to the southward of that point, and in the sea route to Yokohama.

Hostile ships were encountered only in the Tsugaru Straits, where a torpedo division from Ominato followed the fleet for a time, but at considerable distance.

South of Tokyo the squadron captured the British steamer Knight Commander (from New York), loaded with railroad material, the German steamer Arabia, loaded with railroad material and flour, the Japanese steamer Thea, loaded with fish, a Japanese coast-wise steamer and four Japanese junks. All were sunk except the Arabia, which was sent with a prize crew to Vladivostok.

On July 30th the squadron turned back, was again followed by 7 torpedo boats and the mine layer Takao in the Tsugaru Straits, but returned in safety to Vladivostok on August 1st.

THE SIEGE OF PORT ARTHUR.

The blockade of Port Arthur on the sea side had never been perfect. Junks, with letters, despatches and even food, had continually succeeded in entering; the torpedo boat Buriakoff was able to run up to Newchwang and return in safety between July 1st and 3d; and as late as July 31st, a steamer with guns and ammunition, from Newchwang, entered the port.

On July 24th, however, the Buriakoff was fired on by Japanese torpedo boats, in a heavy fog, and sunk.

The Russians in Port Arthur established wireless telegraph communication with Chefoo, but the Japanese consul complained of the matter to the Chinese government.

Such a communication with Kuropatkin or Admiral Skrydloff (commanding the Vladivostok squadron) would have been invaluable to this isolated fortress at that time.

On July 10, the Japanese made a torpedo attack on the Russian ships at Port Arthur, but it was repelled by heavy fire.

Meanwhile, a division of 10,000 men was landed on the Elliott Islands (about sixty-five miles northeast of Port Arthur), and a force of about 20,000 at Kerr Bay (an arm of Society Bay), about 36 miles north of Port Arthur on the west coast.

After their repulse on the Lungwangho on July 4th, the Japanese saw the necessity of bringing up their siege guns before renewing their efforts against the heights bordering that river. This took until near the end of July.

There were constant actions taking place, however, and between July 17 and 19, the Japanese lost 37 officers and 787 men, killed and wounded; the Russians 47 officers and 1,508 men.

On July 26th, at dawn, a heavy bombardment prepared the way for a general attack along the entire left of the line from the heights at Lungwangtang on the left, to Yopilasa Hill on the right. The extreme left of the Japanese was strengthened by the fire of a part of the III. squadron, comprising the Chin Yen, Zukishima, Matsushima, Hashidate, Chiyoda, guarded by 2 cruisers and 30 torpedo boats.

The Russians had fortified and armed their position very strongly. The cruisers Bayan, Askold, Pallada, and Novik, and several gunboats were sent out against the Japanese warships, and these, remaining under the protection of the fort guns, drove the Japanese away. An 8-inch shell from the Bayan struck the Zukushima in the stern, upon which the Japanese vessels retired. In so doing the Chiyoda ran on a mine and was taken into Talienwan Bay. (She was not present with the fleet in the fight of August 10).

Meanwhile, the land battle continued almost uninterruptedly for three days.

On July 27, at the request of the fortress commander, Admiral Reitzenstein took the Bayan, Retvisan, Pallada, and Askold, and Admiral Leshinksky (commander of the port) the gunboats Otvashny, Gremyatchy and Gilyak along the south coast and kept the Japanese left under fire until 3 P. M. The Novik and 12 torpedo boats secured the ships on the sea side against surprise. The Japanese could do nothing to prevent this, as their modern ships could not be risked in the mine fields along shore, and the presence of the Retvisan forbade the use of the older ships. On returning to Port Arthur the Bayan struck a mine, but the damage was reported insignificant.

By the evening of July 28, all attacks of the Japanese had been successfully repelled.

The Russians had lost 40 officers and 1,500 men; the Japanese considerably more.

On the 30th, the Japanese, after being reinforced, advanced to the attack again, this time in 5 divisions; at the same time, the blockading squadron of 4 battleships, 4 large cruisers, 10 small cruisers and 48 torpedo boats appeared. Consequently, General Stoessel saw that he could no longer count on the co-operation of the Russian fleet to repel the land attack. He, therefore, withdrew his forces to the last prepared defensive position outside the girdle of forts, running from the right bank of the Takhe River (Takheho) northward to Wolf Hills, and opened fire on the advancing Japanese. The latter, however, advanced at once against the new Russian position, while the Russians were preparing for the main attack which they expected from the south, and before nightfall took Wolf Hills to the north of the city.

In this action of July 31st the Japanese lost 40 officers and 906 men, killed and wounded; the Russians 56 officers and 1,766 men.

During several days following, the Japanese fortified their position, erecting batteries for siege guns, and by landings during the night occupied the hills between Louisa Bay and the Bay of Ten Ships (Wosmy-Korablai), northeast of Louisa Bay.

On August 6, the Japanese bombarded from these batteries on Wolf Hills, the new city (western part of Port Arthur) and the harbor. On the 8th a continuous bombardment of 15 hours' duration took place, directed against the Russian position on the right bank of the Takhe, and such of the forts of the east girdle as could act effectively against a Japanese attack on Takushan or Siankushan Hills.

Towards evening the Takushan Hills was carried, but on the following day (August 9) the Russians retook it.

During the succeeding days the bombardment of forts, city and harbor was continued.

SECOND ATTEMPT OF THE PORT ARTHUR SQUADRON TO ESCAPE TO SEA.

August 10, 1904.

The permanent fortifications of Port Arthur, on the east and north, the sides on which the Japanese approached, are only about 3½ miles from the inner harbor. It was therefore not necessary for the Japanese to penetrate to the girdle of Russian forts, in order to become dangerous to the Russian squadron in the port.

As long as the foreground of the fortifications to a distance of at least 7 miles, was still in the hands of the defenders, the fortress offered the necessary security to the squadron. But when, on August 30, the position from Lungwangtang to the Yupilasu Hill was lost, the attack was enabled to place batteries in position, and take the inner harbor under fire, at a range of about 4 miles.

At about the same time, the Sevastopol, which had been injured in Admiral Togo's attack of June 24, had been again repaired and rendered fit for service. The Bayan, however, injured more recently (July 27), there had not been time to repair. The squadron could, therefore, go to sea, at that time, with almost full strength.

The defense had evidently been gauged according to the progress of the repairs to the warships. Admiral Witthoeft, who had succeeded Admiral Makaroff, by virtue of his rank (Admiral Besobrasoff, who had been nominated to succeed Makaroff, could no longer enter the besieged fortress), had received orders from higher authority to run out with his squadron and make for Vladivostok, or attempt to join forces with the Vladivostok cruiser squadron.

The Port Arthur squadron comprised the following vessels:

BATTLESHIPS.

Admiral Witthoeft.—Czarevitch (flag), Retvisan, Pobieda.

Rear Admiral Prince Uchtomski.—Peresviet (flag), Poltava, Sevastopol.

LARGE CRUISERS.

Rear Admiral von Reitzenstein.—Askold (flag), Pallada, Diana.

SMALL CRUISER.

Novik.

8 Torpedo Boats.

The large cruiser Bayan, injured recently by a mine, had to be left behind.

At about 6.00 A. M., August 10, 1904, the Russian Squadron, under Admiral Witthoeft, left the inner harbor and passed out into the roadstead. This movement was begun by sending the mine search division on ahead. For this purpose steamers by twos, dragging steel wire ropes between them, were utilized. The battleships, in the above order, followed in single column, then the cruisers in the following order:

Novik, Askold, Pallada, Diana,

the torpedo boats bringing up the rear.

At 8.00 A. M. all the vessels had passed through into the roadstead, and the squadron took a southeasterly course heading for the headlands of Shantung Promontory. This course was kept up for about 1 hour, covering about 12 nautical miles.

The Japanese fleet, at the time the Russians started out, had only a few cruisers and torpedo boats in observation outside the harbor, while the main body of the fleet was not in sight from the roadstead. Some of the vessels of the fleet were in the Elliott Islands, and others at Dalny, etc.

At 6.30 A. M., August 10, 1904, the Japanese fleet commander received a wireless message to the effect that the Russians were leaving the inner harbor. Admiral Togo at once sent orders to all his ships (except those detached on special service) to assemble at the rendezvous precisely designated in orders. Before the Russian squadron began to move out of the roadstead 11 cruisers and 17 torpedo boats of the Japanese fleet had assembled in observation of the Russians and signalled all their movements to the Japanese main body, which assembled south of Round Island (about 40 miles southwest of the Blonde Islands of the Elliott Group, and about 50 miles east of Port Arthur).

The Russian fleet ran out cautiously behind the mine searchers through the dangerous waters in the vicinity of the roads. The mine searchers were then sent back to Port Arthur, and the ships of the squadron received the order by signal "To Vladivostok."

The Japanese cruisers which happened to be on the blockading line at the time, formed in two small columns, one on the starboard and the other on the port side of the Russian column, seeking to get in touch with the latter, while the torpedo boats ran out ahead, throwing out torpedoes, thus forcing the Russians to take a sinuous course and delaying their advance. The Japanese had a column of 4 cruisers on the starboard of the Russian column, the head of column on line

with the Russians; and a column of 4 cruisers on the port side, its head of column on line with the rear of the Russian column. Several other Japanese cruisers were scattered along out in front.

The Russians continued their course on Shantung Promontory, moving at first at an 8-knot speed, which was increased to 10 and later to 13, about the limits of the slower vessels.

At 11 A. M. the main body of the Japanese fleet, under Admiral Togo, became visible on the port side ahead. It consisted of Asahi (leading), Mikasa (flag), Fuji, Shikishima, Nishin and Kasuga, heading nearly south. Admiral Witthoeft at first changed his course to starboard, but soon returned to his original course, preserving the order in column.

A running battle at great range (not under 8,700 yards) ensued, at about noon, lasting for a short time. The Japanese squadron appears to have passed across the head of the Russian column, and changing course came up on its starboard side, moving parallel to it, but at long range (this was about 1 P. M.), and then fell astern about 10 miles, while the Russians continued on their course, heading southeast, at full speed.

The Japanese had fallen back merely to await the arrival of several of their larger cruisers, and by 3 P. M. had closed up near enough to open fire again. The expected cruisers came in on the port side of the Russian column between 2 and 3 P. M., and opened fire at extreme ranges.

In the running fight which resulted the Japanese ships gradually closed on the Russians, concentrating their fire principally on the flagship of the commander-in-chief, which was hit a number of times by the cruisers on the port side, and by the battleships on the starboard side. The Russians concentrated their fire on the Mikasa, which received a number of hits.

The fight began at a point about 25 miles southeast of Port Arthur.

At 5 P. M. the heads of column of the opposing fleets were nearly on line. The Japanese had kept the fighting ranges at about 6,500 to 7,500 yards, and did not come within these distances.

The Czarevitch, at about this time, was struck by a 12-inch shell which killed Admiral Witthoeft; and immediately after another shell of the same caliber struck the bridge, killing the captain and several others, and wrecking the communications. The Czarevitch made a wide sweep to port, out of column.

The rest of the column was thus thrown into disorder. The Retvisan turned to starboard towards the Japanese column, and the latter,

to avoid being rammed, turned 8 points to port, forming line towards the Russian column.

The movement of the Retvisan was the general signal for breaking up the column. After running to within 1,650 yards of the Japanese line, the Retvisan turned again to port, and passing around the Czarevitch, took up the course for Port Arthur. The Pobieda followed. The three rear battleships turned about to starboard out of the column, and also headed for Port Arthur.

The Russian cruisers and torpedo boats had, during the afternoon battle, been assembled to leeward of the fight, and before the main column broke, had received orders to make for Vladivostok independently.

As soon as the Russian column began to break, Admiral von Reitzenstein signaled from the Askold to the Novik, Pallada and Diana to follow him, and started at full speed towards a point between a division of the III. Japanese Squadron, and the cruisers of the I. Division. Although a torpedo boat division fired torpedoes, and 7 Japanese cruisers fired for 20 minutes on the Russian cruisers, the high speed of the latter enabled the Askold and Novik to escape, followed at a distance by the Diana and Pallada.

The battle moved eastward for a time. At 7:30 P. M. the Mikasa was hit on the bridge, and several officers were killed and wounded. The Japanese increased their fire, but did not approach nearer to the Russian ships, and no torpedoes were fired.

Approaching darkness, at about 9 P. M., put an end to the firing. The main body of the Japanese fleet steamed off heading northeast.

Admiral Togo, on the evening of August 10th, sent a division of cruisers and torpedo boats to Shantung Promontory, to intercept any of the Russian ships that might have attempted to pass farther eastward. Other ships placed themselves on the way to Port Arthur, and these attacked the returning Russian ships, but did not do any serious damage.

The Retvisan, Sevastopol, Pobieda, Peresviet, Poltava, Pallada and 3 torpedo boats returned safely to Port Arthur.

The Czarevitch, surrounded by Japanese torpedo boats, lay for about 40 minutes in position.

Her commander, fearing the consequences of another meeting with the main body of the Japanese fleet, decided to make for Vladivostok and consequently kept on his course, heading southeast. To ward off the various torpedo attacks made on her during the night, she steamed under forced draught, but she used up so much coal thereby (on account of her damaged smokestacks) that she soon

found she could not reach Vladivostok with her present supply. Moreover, the main compass and the charts had been destroyed by the Japanese fire, and the other compasses had been rendered unreliable by the concussions, so that she sailed during the night by the stars alone. In the morning the ship found herself northeast of Shantung Promontory. Captain Shoumoff, her new commander, on inspection, found her too unseaworthy to proceed to Vladivostok, and decided to take her to the nearest neutral port, Tsingtan, a German port in Shantung, Gulf of Pechili, which she reached on the evening of the 11th. On the 15th the ship was disarmed.

The Askold and Novik ran at 20 knot speed until dark, and escaped from the Japanese cruisers. The Novik went on, but the Askold, due to the failure of two smokestacks, and a boiler, was compelled to make for Shanghai for repairs. She went into dock there on the 13th, and on the 25th was disarmed. The Novik reached Tsingtau at noon on the 11th, and after coaling, proceeded on the morning of the 12th to sea again. On the 15th she passed through Van Diemen's Strait, south of Kyushu Island (Japan), and passed along the eastern coast of Japan, reaching on the 20th Korsakoff Bay (or Aniwa Bay), on the eastern end of Sackalin (a large island on the east coast of Siberia), apparently to coal again. Here the Japanese cruiser Zushima found her, and engaged in a fight with her lasting nearly an hour, both vessels being injured. On the 21st the Zushima was reinforced by the Chitose, and the Novik was stranded and abandoned by her crew.

The Diana, after being attacked by torpedo boats at Shantung Promontory, arrived at Saigon (near the southern end of Cochin China), on the 20th, and was disarmed on the 25th.

Of the torpedo boats, which attempted to escape eastward, one (the Burni) was stranded south of Shantung Promontory, the crew escaping to Weihaiwei; three others (the Beshhumny, Bespodshadny and Bestrashny) ran to Tsingtau; and one (the Grosowei) to Shanghai. All were officially disarmed.

The Japanese lost 225 officers and men killed and wounded, distributed as follows:

Mikasa: 4 officers, 29 men killed; 10 officers, 78 men wounded.
Yakumo: 1 officer, 11 men killed; 10 men wounded.
Nishin: 7 officers, 9 men killed; 2 officers, 15 men wounded.
Asagiri: 2 men killed.
Torpedo Boat: 1 man killed; 8 men wounded.
Kassugo: 10 men wounded.
Chin Yen: losses not stated.
Idzumi: losses not stated.

The Russian losses were as follows:

On the ships which returned to Port Arthur: 2 officers, 38 men killed; 21 officers, 286 men wounded.

Czarevitch: 7 officers, 10 men killed; several officers, 40 men wounded.

Askold: 1 officer, 11 men killed; 4 officers, 44 men wounded.

Diana: 1 officer, 3 men killed; 23 men wounded.

Novik: 2 men killed.

The Russian ships received the following hits:

Czarevitch: 15 heavy gun, 300 light gun.

Bridge and all elements of communication therefrom destroyed, masts ready to fall, smokestack full of holes, 1 gun out of action, rudder and engines partly destroyed.

Askold: Two smokestacks shot away, one boiler unserviceable, the other smokestacks full of holes, one gun out of action, 4 holes under water, 6 above the water line.

Pallada: 12 shot holes, causing leaks.

Retvisan: 11 hits.

Diana: 1 shot hole, causing a leak.

Peresviet: 1 gun and electrical plant out of action, both signal staffs shot away.

The amount of ammunition fired by the Russian ships was not reported, but the Czarevitch fired 75 shots from the forward turret and 45 from the after turret, while the 6-inch guns fired about 600 rounds.

DEMONSTRATION OF THE VLADIVOSTOK SQUADRON.

August 14, 1904.

On the same day (August 10th) on which the Port Arthur squadron made its unsuccessful effort to break through the blockade, the Pacific cruiser squadron, comprising the Rossia (flag), Gromoboi and Rurik, left Vladivostok. On August 14th, in the early dawn, it arrived at the northern entrance to the Straits of Corea, where the Japanese II. Squadron, under Admiral Kamimura, was stationed, with Takeshiki, on Tsushima Island, as its base of operations.

The II. Squadron was organized as follows:

2nd Division, Admiral Kamimura: Idzumo (flag), Tokiva, Azuma. Admiral Misu: Ivate (flag).

4th Division, Admiral Urin: Takeshiko (flag), Naniva, Niitaka, Tsushima.

One Division Torpedo Boats.

Kamimura had orders to prevent the Russian cruiser squadron from entering the Yellow Sea.

During the night of August 10th to 11th, Admiral Kamimura at Takeshiki received a despatch from Admiral Togo that the Port Arthur squadron had broken through the blockade, and a part had turned toward the Straits of Corea, and that he must expect the Vladivostok squadron to approach from the other side.

Admiral Kamimura, therefore, posted outposts in both directions and cruised with his main body, four armored cruisers, between the southeast corner of Corea and the northern end of Tsushima Island.

On August 14th, at 4 A. M., as he was heading south from the Corean coast, the Vladivostok cruiser squadron was sighted to port, heading south, about 11,000 yards away. At a point about 42 nautical miles from Fusan (Corea) and 36 from the northern lightship of Tsushima, the Russian squadron changed course to west into the northern part of the Straits of Corea. Admiral Kamimura awaited the arrival of the Russians.

As soon as the latter made out the Japanese squadron they went about and attempted to escape northeastward into the open Japan Sea, but could not get up full speed as fast as the Japanese. The latter pursued, drawing in rear of the Russian column to such a position that all of the Japanese ships could fire on the Russian vessels, raking them fore and aft, whereas the leading Russian ships had their fire masked by those at the rear of the column.

The Japanese opened fire at 12,000 yards, concentrating on the rear ship, the Rurik, which soon received hits in the stern.

To improve the tactical position of his squadron the Russian commander turned northward, a maneuver which the Rurik could not follow, as her steering gear was out of order. Meanwhile, the Japanese continued to pour their shot and shell on the Rurik. To cover the latter and give her time to repair the damages to her steering gear, the Russian commander went about with his two other ships, passing between the Rurik and the Japanese line, then again turned northward.

Towards 8 A. M. the battle had approached to within 2 nautical miles of the Corean coast, and the Russian commander, turning northeastward, signaled to the Rurik: "*To Vladivostok.*"

The Rurik followed the other two vessels at some distance. The Japanese main squadron followed at about 4,200 yards range.

Meanwhile, the Naniva, Takashiho and Niitaka, which had been on outpost duty, came in from different points, and took part in the

pursuit. The Russian ships suffered severely from the Japanese fire, which was well directed.

At 8.30 A. M. the Rurik sank deeper astern; the Japanese ships Naniva and Takashiho also fell out to look after her, while the 4 larger Japanese cruisers continued the pursuit of the Rossia and Gromoboi. The latter were so badly shot to pieces that they could not safely go about again to help the Rurik. Admiral Kamimura kept up the pursuit until 10 A. M., without getting closer than 3,900 yards, then turned to starboard, crossing the lee of the Russian ships and, after a general rapid-fire from all available guns, returned to the spot where the Rurik had been left.

The Rurik. fired on continuously at medium and long range by the small cruisers, returned the fire as long as possible. Finally, the military mast fell, the stern began to sink, and only 2 guns were serviceable; then the ports were opened to hasten her sinking, and she went down stern foremost. The crew was picked up by the Japanese ships, assisted by a division of torpedo boats which had just arrived.

The losses were as follows:

The Japanese lost 2 officers, 44 men killed; 7 officers, 65 men wounded.

The Russians lost 5 officers, 135 men killed; 5 officers, 307 men wounded, exclusive of the Rurik, which lost 119 killed and wounded, and 600 prisoners.

The Russian ships received the following serious hits, resulting in leaks:

Rossia, 11; Gromoboi, 5.

COMMENTS.

The main cause of the attempt of the Port Arthur squadron to break through the blockade, was the fact that the ships were no longer safe in the harbor of the fortress, and the principal purpose of the Russians was apparently to escape to Vladivostok. The efforts of the Vladivostok squadron were apparently limited to making a diversion in favor of the other squadron. Both squadrons attempted to avoid a serious engagement.

The spirit of the *offensive* is entirely wanting. It would seem that the highest duty of the Russian squadrons could only be accomplished by an energetic *attack,* with a view to putting out of commission as many of the Japanese ships as possible, in order to give the Baltic fleet, on its arrival, a better chance to secure command of the sea in the Far East, for on that the entire campaign hinged.

The result of the purely *defensive* action of the Russians was to lose several of their best ships and return to the very conditions which they were trying to alter, and all this without inflicting serious damage on the Japanese.

The chances of success in a close attack were at least equal, and appeared, indeed, to be in favor of the Russians, for they had 6 battleships against the Japanese 4 battleships and 2 armored cruisers.

The gun power, however, was in favor of the Japanese:

Battle of August 10th.

	12-inch.	10-inch.	8-inch.	6-inch.	4.7-inch.
Japanese	23	3	16	80	58
Russians	12	8	..	88	6

Battle of August 14th.

	12-inch.	10-inch.	8-inch.	6-inch.	4.7-inch.
Japanese	..	4	16	78	..
Russians	..	..	12	48	6

Moreover, the Japanese were far better gunners than the Russians, as the latter themselves admit. They made hits at ranges of 7,650 to 8,750 yards. It should be noted, however, that the Japanese guns were provided with telescopic sights, while the Russians had only the ordinary sights, and the Japanese had had ample opportunity for gun practice, while the Russians, confined as they were to the two ports, had no such opportunities, especially at Port Arthur. The Czarevitch, for example, fired her heavy guns in this battle for the first time in the war.

In view of the great importance of *sea power* in this war, the action of both antagonists in many respects is difficult to understand.

In the first place little effective use appears to have been made of the *torpedo*. On the Russian side this was not so surprising, for they were evidently not thoroughly trained in the use of this new weapon of war; but on the Japanese side it was the more astonishing as their energy in handling this weapon had been pre-eminent throughout the war, and their failure in these actions to utilize it fully can only be ascribed to the imperfections of the material. It should be remembered, too, that in the first attack of the war (February 8, 1904), which was made under the most favorable conditions, they fired 23 torpedoes, of which only 3 struck, consequently they made only 13 per cent. of hits.

The Russian ships in the battles of August 10th and 14th were particularly exposed to torpedo attack, since the Askold, Diana and

Pallada had no water-line armor at all, while Rurik, Gromoboi and Rossia had no belt armor in the stern, where, in their retreat, they were most exposed to the Japanese attack.

The Russians apparently looked upon their cruisers and torpedo boats as a necessary burden, and did not attempt to utilize them tactically.

Admiral Witthoeft, in moving out, took *four hours* for preparation, all of which could have been effected during the night preceding by the use of his smaller craft. The time thus gained might have enabled him to avoid a battle and effect his escape. But when he saw that an engagement was inevitable, his only chance for success lay in coming to close range, since his object should have been to *destroy* as many of the Japanese ships as possible, for the latter could not have replaced them for the war, and long-range actions could only cause injuries which could readily be repaired (for which the Japanese had the necessary facilities).

The Vladivostok Squadron, by its hasty retreat, placed itself in a very disadvantageous position tactically. Its highest duty, too, would appear to have been to *destroy* as many of the Japanese ships as possible.

The fact that the Czarevitch could remain on the battlefield so long after she became temporarily unmanageable, surrounded by torpedo boats, and then escape, can be explained only by the failure of the torpedo *material*. But the inaction of the Japanese fleet, after the fight, when most of the Russian ships started back towards Port Arthur is inexplicable.

The *tactics* of the Japanese in these actions, namely, to remain at the ranges which would best utilize their superior gun power and their superior accuracy of fire, without sacrificing any other important points, was perfectly justifiable, especially as they were obliged to economize their ships, in order to have the requisite strength to meet the Baltic fleet, when it should arrive. But why they did not pursue the retreating Russian ships toward Port Arthur is not clear.

The tactics of the Russians are comprehensible up to the moment the Czarevitch sheered out of the line. At that time the best chances of the Russians lay in the mélée, in close action which would overcome the advantages which the Japanese possessed in their more numerous long-range guns, and in their greater accuracy of fire. The Retvisan was the only ship that seemed to comprehend this, for she made directly for the Japanese line, but, not being supported by the

other Russian ships, she had the fire of several Japanese ships concentrated on her, and was forced to go about, and escape as best she could.

The great lessons to be learned may be summed up as follows:

1. *Target practice,* carefully conducted and long continued.
2. *Torpedo practice,* perfected by careful training.
3. *Torpedo material* of the best kind, subjected to constant tests.
4. *Battleships* in sufficient number to insure command of the sea.
5 The *offensive* alone promises ultimate and decisive success in war.*

*The losses on the Yalu, April 30 and May 1, are now given as follows: Japanese (killed and wounded), 38 officers, 1,001 men; Russians, 70 officers, 2,324 men. At Wafanku, June 13-15: Japanese (killed and wounded), 50 officers, 1,113 men; Russians, 113 officers, 3,363 men.

*THE BRITISH AND GERMAN FLEETS.**

THE Navies of Great Britain and Germany are being reorganized, practically simultaneously, and the underlying principle in each case is—concentration. The latter Fleet is massed in the North Sea, and the squadrons are being rearranged and strengthened with new ships, while the British Admiralty are carrying out plans which will result in practically the whole Navy being reconstituted so as to provide a more dominating striking force in the seas which wash the British Isles than has ever before existed. The old policy of wasteful dissipation of strength has been abandoned and, if the truth will not be unpalatable, we are taking a leaf out of the German book. The traditional organization of the British squadrons is being abandoned in order to meet a new political situation. The changes have one end in view—the provision of an immense striking force ready for instant use, so that the first paralyzing blow may fall on any foe immediately, as it fell on Russia in the Far East last spring.

The British plans include:—

(1) The withdrawal from distant stations of all non-fighting ships—little cruisers, sloops, and old gunboats—vessels too weak to fight and too slow to run away from any probable enemy.

(2) The reduction of the strength of certain distant squadrons in view of altered political circumstances since the present disposition of ships was settled; the North Pacific Squadron and the South Atlantic Squadron being abolished and the ships of the North American Squadron becoming a Particular Service Squadron, used in peace time mainly training cadets and boys.

(3) The provision at the home ports of an efficient organization which will enable the ships on the War List in the Reserve to proceed to sea prepared in all respects for war immediately the Admiralty issue orders. The officers and men withdrawn, as stated above, from distant squadrons, will be utilized as nucleus crews in the Reserve ships.

(4) The reorganization of the battle fleets in European waters, so as to coincide with the needs of the Empire in the face of the shifting of naval power from southern to northern waters.

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These are the main features of the new scheme. The reorganization has been rendered essential owing to the changes which have occurred in the balance of naval power. Until lately the naval defence scheme of the empire has been pivoted on the Mediterranean. In the North Sea hardly a warship was seen; and quite a secondary force was maintained in the English Channel. The balance of power has undergone a complete reversal. The naval power of this country if now being shifted so at to coincide with the altered situation. British predominance in the Mediterranean is not being abandoned, but British influence in future will be more in evidence in the North Sea and English Channel than it has been in the past. The Fleet in the Mediterranean will remain one of the most important commands any officer can hold, and it will continue to be the most powerful strategical unit in the Midland Sea, but it will be reduced by four battleships, while the force "based" on British ports will be made stronger to that extent, and a squadron of eight battleships and six armored cruisers will act as the connecting link between the Channel and the Mediterranean Fleets, with Gibraltar as its *point d'appui.* This force will be known as the Atlantic Fleet. It will be ready at any time to sit astride the Straits; to go to the eastern end of the Mediterranean to render aid to the Mediterranean Fleet, if need be; to steam out into the Atlantic, or to sweep up the English Channel to the assistance of the ships—the Channel Fleet—to which the defence of the Narrow Seas will be entrusted. Consequently, for striking an immediate blow, the Mediterranean Fleet gains four battleships in reality if trouble occurs in those waters, while the Channel Fleet, with the Atlantic Fleet, will number twenty battleships, if any Power should threaten to disturb the Pax Britannica in more northerly waters . Gibraltar becomes the "pivot" of this distribution of twenty-eight battleships and the three attached squadrons of eighteen armored cruisers, practically light battleships. It has been announced that in the spring Lord Charles Beresford will have the reversion of the command of the Mediterranean, that Rear Admiral W. H. May, a name with which the British people have good reason to familiarize themselves, as he is the coming man in the navy, will assume the control of the Atlantic force, hitherto known as the Channel Fleet, and that Vice-Admiral Sir Arthur Wilson, V. C., probably the best strategist the Fleet has had for many years, will fly his flag for two years longer as commander-in-chief of the Home Fleet, which will be styled the Channel Fleet under the new scheme.

For the first time in the history of the modern navy, the nation will have a veritable Channel Fleet. In the past, on the first whisper

of war, the Channel Fleet has passed out of the Channel to Gibraltar, so as to be handy to co-operate with the ships in the Mediterranean, leaving the English Channel and the North Sea without any sea-going and trained force. As long as we possessed only two fighting fleets in Europe and the naval Powers on our eastern flank were negligible, the arrangement was the best that could be made. Now, however, the Earl of Selborne having created a new battle fleet, this force becomes definitely the Channel and North Sea Fleet. Its "beat" in peace time will be from Portland to the Firth of Forth and its place in war will be off the enemy's coast.

Moreover, the scheme also includes, as has been indicated, the recall of weak ships away in distant waters—"death-traps" they have been styled—the abandonment of certain squadrons, the importance of which has decreased, and the "grouping" of the cruisers on foreign and Colonial stations on war lines. The officers and men set free by reduction in the number of small ships abroad and by the substitution of merchant sailors in some other non-fighting but essental ships—an army of ten or twelve thousand of all ranks—will be utilized for further expanding the fighting forces at the strategical center of the Empire. They will enable the Admiralty to make the best possible use of our reserves—ships in ordinary. In recent years improvements have been made, but hitherto the difficulty has been to secure an adequate number of officers and men to maintain those men-of-war at the home ports not actually under repair in a condition for immediate sea service. By the withdrawal of non-fighting ships from the Fleets and a reorganization of the coastguard service—a force at present comprising nearly 4,000 highly-trained men—this defect will be remedied. The idea is that officers and skilled men—gunners, torpedoists, engine room hands, etc.—shall be assigned in peace time to all vessels on the "war list" and no obsolete vessels will be on this list; they will be ships in commission with reduced crews. On an emergency the remainder of the complements would be immediately supplied. These will not be highly skilled, trained in all the intricacies of duty afloat, as their work will be of the simplest character, requiring only average intelligence and muscle. They will be the "hewers of wood and drawers of water"—men required for miscellaneous, non-technical duties. The ships, in facts, will be completed with reservists—men of the Royal Naval Reserve and the Royal Fleet Reserve. Reservists can be called out only by Royal Proclamation and, therefore, these ships could only be completed for war when war had become practically inevitable. A rear-admiral will be in command of the Reserve ships at each port who will himself take the

reinforcements in time of war to the Fleet which they are to reinforce, and "he, and he alone," it is announced, "will be held responsible that every possible step has been taken to reduce breaksdown of machinery to a minimum, and that the fighting efficiency of his ships when mobilized is without flaw." Later on, as the number of ships in Reserve increases, one rear-admiral will be appointed to command the battleship division and one to command the cruiser division at each port. These flag officers will command the divisions on mobilization for war. Consequently, on the Admiralty sending telegrams to Portsmouth, Devonport, and Chatham—"Mobilize," these vessels will merely have to receive the less highly trained hands and they will be ready for sea. But occasions sometimes arise when it is desirable to increase the force at sea without a general mobilization and a Royal Proclamation calling out reserves. This need is supplied by the new arrangement, whereby at each of the three ports two of the battleships and two first-class cruisers—styled "emergency ships"—will be maintained in a condition to complete their complements and proceed to sea without disorganizing the general mobilization scheme or interfering with the gunnery or torpedo training classes.

Another change which has been effected has given the Admiralty two swift squadrons of scouting ships. The old training ships, some of them sailing vessels and others antiquated ironclads of no war service, have been paid off and their places taken by modern ships, which in future will be used for the training of cadets and boys at sea and seamen in gunnery, torpedo, and navigation. They will have trained officers and crews on board for their peace duties and, in case of emergency, will be speedily transformed by drafts from the depots of unskilled hands into most useful scouts for the Fleets at sea, or for detached service. Some of these ships, including the Reserve drill-ships round the coast, will be based on home ports and will include sixteen protected cruisers and thirteen torpedo gunboats, with nine destroyers, while others, though having Davenport as the headquarters, will constitute the particular Service Squadron, which will cruise in the Atlantic and West Indian waters. The last-named force will be the "Western Group" of cruisers, while those in East Indian, Australian and China waters, under the strategical control of the Commander-in-Chief of the China Squadron, will form the "Eastern Group," and the cruisers of the Cape will be the "connecting group" between the East and West.

By these changes the force of the blow which the British Navy could strike at once on the outbreak of war will be doubled, if not trebled, and this will be effected not only without additional expendi-

ture, but with immediate and substantial economies. "Concentrate" is the watchword of the Admirality. It has been the business of politicians in the past to utilize the years of peace in preparing for the millennium and on the outbreak of war to rush into operations ill-prepared, and with wasteful outpourings of the national resources. Almost all British wars have begun with disaster. The Admiralty have outraged British traditions of defence by preparing to meet a danger of which only the first shadowy outlines have been observed by the public: they are locking the stable-door before the thief has appeared, instead of waiting for the thief to do his work and then in hurried confusion setting out to punish him. In the whole story of British defence, since Great Britain became a democratic country, the action of the Admiralty is without parallel. It has come to be recognized as an almost essential principle that the British nation should not prepare for a probable contingency of war for fear the action migh hurt some one's susceptibilities; the army and the navy, in all their unpreparedness, should remain unready, hold their breath, in fact, so as not to reveal their existence; then, if war should occur—well, it could be said that at least the British had not provoked it—and, after all, we usually "muddle through." In most naval engagements we have "muddled through" because we have had the "biggest battalions"—have eventually secured superior power to throw at the enemy. That day has gone. We do not remain one of two naval Powers of the first class, as was the case even as lately as twenty years ago, but the British Fleet is one of seven great fleets. Rivals have arisen, and if we would hold what we have we must organize to defend it. This the Admiralty are doing, and they are carrying out the task while the shadow of war is, it may be hoped, yet a long way off.

We are at peace with the world. The relations of Great Britain with France and Italy were never more cordial. These nations happen to be the two which have expanded their fleets least in the past twenty years. The naval expenditures of these two countries, which was £12,926,000 in 1889, the year of the British Naval Denfence Act, amounted to only £13,162,000 in 1904. Apart, therefore, from the good relations existing with the two powers of the Mediterranean, we should have reason for reconsidering our position in those waters. We are also on terms of friendship with Russia and with Germany. In 1889 these two Powers were devoting £6,164,000 to their fleets; while in 1904 the expenditure was £23,000,000—an increase equivalent to nearly 400 per cent. We are not preparing for war with either of these powers, because we are shifting some of our might so as to

safeguard northern waters, while not relinquishing our position in the Mediterranean. Such a growth of naval power could not be ignored, though the Russians' Fleet for the moment is under an eclipse.

In spite of all that has been said and written, there is no solid foundation for the reiterated statement that Germany seeks to embroil herself in war with this country—nothing more than a widespread suspicion—but her naval policy has given every excuse for such measures of precaution as the Admiralty are taking. There is a case for preparation not in view of the prospect of probable hostilities in the near future, but because the German Fleet is being increased so swiftly as to give reason to believe that it might be used as a political instrument or might serve in case of our complication with some other country or countries as tongs wherewith to pull chestnuts out of the fire for the benefit of Germany. A neutral Power can use a fleet with good effect—without striking a blow—against a nation weakened by war, even though that nation be victorious, as was Japan in 1895. It is possible to imagine circumstances in which the silent pressure of a strong German Navy could compel concessions; it might be merely consent to some line of action, such as the assertion of undue influence over a neutral neighbor, the seizure of a coaling-station here or there, or the shifting of some boundary. A nation well armed, as Germany will be, might effect its purpose without firing a gun or running a single torpedo. The preparations of the British Admiralty indicate not a shadow or animosity for the German nation. Germany has a right in view of her growing mercantile marine to a more considerable fleet than she has possessed in the past. but the fact that this fleet is increasing out of all proportion to the extent of the Empire's merchant shipping, its over-sea trade, and its colonial possessions—expensive luxuries enough already—does compel other Powers to take precautionary measures while at the same time remaining on friendly terms. British statesmen cannot forget that in the preamble to the Navy Act of 1900 it was stated that "Germany must have a fleet of such strength that a war even against the mightiest naval power would involve such risks as to threaten the supremacy of that Power." Great Britain is "the mightiest naval Power," has been in the past, and must remain so in the future. The Kaiser has also told the world that German's "future lies on the sea," and at another time claimed that he was "Admiral of the Atlantic." We did not ignore the growth of the French Navy in the late eighties, and to-day we are good friends with the French Government because we showed that we had backbone and that we realized our inheritance and the duty that it cast upon us—that we were not, in

fact, one of the late Lord Salisbury's "waning nations." Again we are faced by naval aggrandizement by a neighbor, and again we are taking steps, not with a view to war, but to safeguard our position—to prevent this rising navy being used as an instrument against British interests, first and foremost among which is peace. Europe understands this truth so well that she is apt to trade upon it. Though we desire peace, we should at least have the courage and the organization for war, and then, indeed, peace will be our reward—peace with honor.

The movement for a strong navy, which the Kaiser initiated, first took shape in 1898, but the scheme was expanded two years later, when the Emperor announced his determination, "as my grandfather did for the army, so will I for the navy, carry out the work of reorganization." Apparently it was thought that this work would be performed with the tacit concurrence of all rivals. As a matter of fact, it has led to the *renaissance* of the British Fleet, has prompted in large measure the extraordinary and unparalleled expansion of the American Navy, and is now leading the French people to turn attention once more to the improvement of their sea forces. In the meantime, Germany has proceeded to carry out her scheme, the initial factors in which are:—

(1) Concentration in the North Sea.

(2) The patient and unremitting training of the crews in their war duties, so as—to quote the Navy Act again—to compensate for the numerical superiority of rivals by the individual training of the crews and by tactical training in large bodies.

German methods are nothing if not thorough. Germany has already gained great advantages by her sacrifices. She now rivals France on the one hand and Russia on the other on paper, and in fighting power the rivalry is even more appreciable. But in relation to Great Britain the position of the German Navy is not so favorable as is sometimes supposed, because the German ships are of less power than those of England and in the past six years the organization of the British Fleet has been immensely improved and is still being further adapted to modern needs. It is doubtful, taking all considerations into review, if to-day Germany, in respect to Great Britain, is in much better position on the seas than she was in 1897, bearing in mind the fact that owing to Russia's naval misfortunes in the Far East the opportunity to play the part of "honest broker" in any "scrap" in which England might be engaged has become, and must remain for some time, an enterprise which would be altogether too dangerous. At the same time, Germany has a Fleet to-day of the first class, whereas she had

only a few ships of negligible value in 1897, and it is her policy to concentrate all her fighting weight in the North Sea, always maneuvering and carrying out mimic invasions and other drills, so as to familiarize officers and men with war duties. The German Fleet is directly under the control of the Emperor; the Reichstag, having voted supplies, has no further voice in its affairs. The management of the Fleet is as much a personal affair as the control of the Royal palaces. By his Majesty's direction the whole force is kept in the North Sea; even the four battleships which were in the Far East in 1900, constituting the famous "Mailed Fist," have been withdrawn to home waters, where the German Navy stands ready in all its strength.

Under the new organization of October, the First Active Fleet of Germany will be under the supreme command of Admiral von Koester, with Vice-Admiral Fischel and Rear-Admiral Graf von Baudissin as commanders of the two squadrons, and Rear-Admirals Breusing and Schmidt as divisional commanders. It comprises the following ships:

FIRST SQUADRON.

First Division—First-class battleships: Wittelsbach, Zahringen, Wettin.

Second Division—First-class battleships: Mecklenburg, Kaiser Karl der Grosse, Kaiser Wilhelm II.

Despatch-vessel—Third-class cruiser: Blitz.

SECOND SQUADRON.

First Division—First-class battleships: Kaiser Friedrich III, Kaiser Wilhelm der Grosse, Worth.

Second Division—First-class battleships: Braunschweig, Elsass, Weissenburg.

Despatch-vessel—Pfeil.

CRUISER DIVISION.

First-class armored cruiser: Friedrich Carl.

Third-class cruisers: Arcona, Hamburg Frauenlob.

First-class armored cruiser: Prinz Heinrich.

Third-class cruisers: Ariadne, Medusa, Amazone.

(This sub-division of cruisers is attached to the First Squadron.)

Almost simultaneously an order was issued organizing the older German battleships, really coast defence ships, into a reserve squadron consisting of eight vessels, so that already the Kaiser has the satisfaction of having at his disposal a formidable force of twelve first-class battleships, eight coast defence ships, two armored cruisers, and six

swift, protected cruisers, besides small craft, about forty destroyers, and a hundred torpedo-boats. This is by no means a despicable Fleet even in these days of naval aggrandizement, and this is merely the German Navy in the making; the expansion is not complete. Eight battleships, three armored cruisers, six small cruisers, and many torpedo craft are now being built, and a number of coast defence ships are being modernized, while, at the same time, under the powers of the Act of 1900, these older ironclads are being replaced in the Active Fleet by first-class battleships. It was intended to complete the great programme in 1917, but it is now certain that it will be finished before that date, probably five or seven years sooner, and another programme for further increasing the size of the Fleet will be shortly authorized. in spite of the shortness of money Germany is experiencing. It may be accepted as a fact that by 1912 the German Active Fleet in the North Sea will comprise:—

28 First-class battleships.
18 Large cruisers.
45 Small cruisers.
16 Torpedo-boat divisions.

Behind this force, in reserve, but kept ready for almost immediate despatch to sea, will be about a score of older battleships, many of which will, it is true, be of comparatively small fighting value.

It is in view of these facts that the balance of power of the British Navy is being shifted and its reorganization improved so as to enable the Admiralty to keep a larger and more efficient striking force in home waters. The new scheme of distribution will give us a fighting force in Europe disposed as follows:—

CHANNEL FLEET of twelve battleships will defend the English Channel and the North Sea, having attached to it one division of six armored cruisers, about sixteen protected cruisers—assigned in peace for coastguard and other duties—and all the torpedo boat destroyers, gunboats and torpedo boats in home waters.

MEDITERRANEAN FLEET of eight battleships will have a division of armored cruisers, a number of "Scouts," and torpedo craft. Its base will be Malta, as at present.

ATLANTIC FLEET, consisting of eight battleships and a division of armored cruisers, with a couple of small cruisers, will have Gibraltar as its base. It will be the "pivot" battle force, ready to carry out either of four duties as an emergency may demand; (1) sit astride the Straits; (2) co-operate with the Mediterranean Fleet; (3) join forces with the Channel Feet, or (4) act as an independent force in the Atlantic.

AT THE HOME PORTS.

RESERVE SHIPS on the "War List" at Portsmouth, Chatham, and Devonport, with all essential officers and trained men on board, will be ready for sea at short notice and under the command of the flag officers who would command in war. These three Reserve Squadrons will probably eventually include about a dozen battleships and twice as many cruisers.

EMERGENCY SHIPS.—At each of the three ports two battleships and two large cruisers will be kept ready for almost instant despatch for sea.

This organization is logical and essential in view of the change in the balance of naval power. Though we are on the friendliest terms with all our neighbors, it is essential that the strategic plans of the Admiralty should bear in mind that they are also rivals. It was a dictum of Bismarck's that in framing national policy the friend of to-day should be regarded as the enemy of to-morrow. There is no more threat to any Power in these fresh dispositions of the forces of the British Navy than there is in the patrolling of the frontiers of France, Russia, and Germany, or in the action of Switzerland in recently expending large sums to protect her mountain frontiers with heavy artillery. It is the alarmist who is the danger, not the authorities. There is no occasion for alarm or for sensationalism, but there is room for these precautionary measures in view of the shifting of power. The new scheme does not lead to any abandonment of the Mediterranean, as has been suggested in some quarters, but it actually will lead to an increased number of battleships being available for employment in those waters, since the Atlantic Fleet will be based on Gibraltar. The British force which will dominate the Mediterranean will thus be greater than ever before if trouble threatens in that direction. It may be that in the event of serious peril in northern waters, when the Atlantic Fleet would join the Channel Fleet, the Mediterranean Fleet would at once pass up to Gibraltar, but certainly so far as the actual plans at present outlined are concerned the British position in the Midland Sea will be strengthened, while at the same time the domination of the English Channel and North Sea will be more supreme than ever before.

Another probable change, though it may be that it will not be carried out at once, can be indicated. In view of the size and importance of the Fleets which will in future be continually in commission in Western Europe, we may anticipate the appointment of an *admiralissimo*. The probability seems to be that the next war which *threatens*, judging by indications at present discernible, will find the Atlantic Fleet and the Channel Fleet, now the Home Fleet, acting in co-operation. Under these circumstances the senior officer of the Channel Fleet—the senior admiral flying his flag afloat—would become the

officer in supreme command of these forces, comprising five divisions of battleships. In the German Navy an officer in this position has no personal responsibility for the command of either of the squadrons or divisions, but he is the head of them all—the thinking machine. At present Admiral von Koester occupies this important appointment: he is the *admiralissimo* of the German Active Fleet, responsible for its efficiency and its strategical and tactical disposition for war. He has the advantage of the advice of the squadron and cruiser flag officers, but their duties are mainly confined to the domestic affairs—if the phrase may be used—of their particular commands, while the admiral in supreme command acts as War Lord of the Fleet. The probable outcome of the present reorganization of the British Fleets in the Near Seas will be the selection of the most capable senior officer qualified for sea employment to fill the imposing position of senior admiral afloat, with three junior admirals in command of the divisions of the Channel Fleet, and a rear-admiral controlling the six armored cruisers of the Fleet. When the Atlantic Fleet is called upon to co-operate with the Channel Fleet, the senior officer in command, a vice-admiral, will bring his two battle squadrons and squadron of armored cruisers under the orders of the *admiralissimo,* raising the whole command to a matter of twenty battleships, with twelve armored cruisers. The *admiralissimo* will be in supreme command. There will then be two or three vice-admirals and three or four rear-admirals under him. This is looking ahead, but this organization for war is the logical outcome of the changes which are now being made. When war occurs these forces will be joined by the ships from the Reserve and the cruisers of the training service, probably as many as twelve battleships and thrice that number of protected cruisers, adding four or five junior admirals to the officers flying their flags. It is essential that the defence of the Channel and the North Sea should be unified, and this, it may be anticipated, will be the means by which that end will be attained.

The nation owes the reorganization of the British Fleet mainly to the Earl of Salborne, the First Lord of the Admiralty, and to Admiral Sir John Fisher. Mr. Chamberlain's former lieutenant at the Colonial Office has revealed himself as a bold administrator, who is not afraid to face facts as they are. Many politicians seem to spend their lives in evading responsibility; Lord Selborne, with magnificent courage, has marked himself out as a great naval administrator by never shirking resposibility, by unremitting study of the huge defence machinery placed in his charge, and by ceaseless labor. He has had in Mr. Balfour a "chief" who has never been too busy to

assist in the colossal task which he has undertaken. Lord Selborne came to the Admiralty when the Fleet was still bound down by the traditions of the old sailing days, when the administration was unduly hampered by red-tape and over-centralized, and too little attention was devoted to gunnery and real war training. He proceeded to carry out the series of reforms in all the details of administration and naval training which were urgently needed. Not the least of Lord Selborne's claims to the country's gratitude lies in the fact that he has had the courage to listen to his naval advisers; chief among them, in fact the author of practically all the reforms now being carried out, is Admiral Fisher. It is fortunate for the nation that it had one of the most remarkable men of the age to undertake the task of remodelling the Fleet to render it fit for its duty as the bulwark of British liberties, trade, and Empire. Voracious for work, an officer who thinks in fleets and oceans where others have been content to think in ships and seas, Sir John Fisher had made his reputation as an administrator years before the public became familiar with his name. The science of naval warfare has received his life-long devotion. Contemporaries recall the young commander who was always at work, from five in the morning until late at night, and the energetic post-captain and junior admiral, who was dreaming and planning what the Fleet might be. As the main inspirer of Mr. Stead's articles "The Truth about the Navy" in 1885, which gave impetus to the great naval movement of the last twenty years; and as the officer who, with Admiral of the Fleet Sir Frederick Richards, stood by Earl Spencer, when, in 1895, Mr. Gladstone tried to reduce the provision for new men-of-war, Admiral Fisher deserves the gratitude of the nation. It has been remarked that Sir John Fisher runs the risk of those persons of whom all men speak well. In honesty it must be said that this officer is in no such danger. He has, it is true, the complete confidence of the public, but it is probably no exaggeration to say that the majority of the officers of the Fleet—certainly of the senior officers—do not share the enthusiasm of civilians. The Navy is a service with conservative traditions, and the reformer is apt to tread on someone's toes. Admiral Fisher has done a good deal of dancing of this character. It is one of the penalties of greatness to make enemies, and Sir John Fisher is no exception. He has enemies not a few, and there are others who merely do not sympathize with all his plans; but he has also the satisfaction of knowing that he has a body of supporters in the Fleet who yield to none in their admiration of his ideals and achievements.

The scheme which is now converting the Fleet into the greatest of all war-machines is not a hastily contrived panacea. It is the result of a lifetime of thought and work. Every detail has been carefully considered. Sir John was fortunate in gaining the approval of the King and the full confidence of Lord Selborne and his colleagues of the Cabinet. Each, from his Majesty downwards, has had some share in the preliminary work which has been proceeding for many months past, and while Admiral Fisher has brought to the task the trained mind of the most consummate naval administrator of modern times, his Majesty, the Prime Minister, and the First Lord of the Admiralty have lent their support in a manner which has smoothed many of the difficulties. The result is that instead of carrying out a few piecemeal changes Admiral Fisher, under the authority and in the name of Lord Selborne and the Board of Admiralty, has been able to initiate a complete revolution in practically all departments, ashore and afloat, and as an immediate consequence the strength of the Fleet as a warlike intsrument is being doubled, if not trebled.

OUR CONTEMPORARIES.

AN analsis of the contents of the principal military periodicals, systematically classified under a few general heads for the convenience of the reader and student, comprising extracts and comments, in which special attention is given to the most important and valuable articles.

The articles from our service journals are all entertaining and interesting, but we are limited in our space for quotations. The following, however, deserve careful study and consideration, viz.: the *twelfth, fifteenth, sixteenth* and *twenty-fifth.*

The *twenty-seventh* is probably familiar to all, but we will call attention to three important points:

"THE NAVAL APPROPRIATIONS.

"The naval estimates for the next fiscal year are large, the largest ever submitted, notwithstanding the fact that they have been cut down from those sent in by the bureaus more than seventeen million dollars. We have asked for less than the money actually required to continue the naval programme as laid down by the general board, of which Admiral Dewey is the head, notwithstanding all who have studied the question carefully agree that this programme should be carried out.

"The past year was an important one in the history of our naval construction. Never before were so many war ships launched by this or any other nation in one year. Vessel for vessel and type for type I believe our new ships will compare favorably with those of any navy afloat, and every American should be proud of the progress and character of work now being accomplished, not only in construction but in all branches of service.

"New ships necessarily require more officers, more marines, and more enlisted men, and the appropriations are quite likely to increase steadily for some years to come. The more ships we have the greater our fixed charges will be and the greater our facilities necessarily must be, in the way of yards and docks, and the ability to make repairs and take proper care of the fleet. It is just as essential to keep our ships in thorough repair as it is to build them in the first place, and to permit them to run down for any length of time and go with-

out repairs would be the height of folly. It costs a great deal of money to keep the fleet moving in maneuvers and target practice, but this is the only way officers and men can gain experience at sea; and it is our well-defined policy to maintain a high standard of efficiency throughout the service. Practice makes perfect in the Navy as everywhere else.

"INCREASE OF PERSONNEL.

"Attention is earnestly invited to the recommendations made by the chief of the bureau of navigation respecting the need for more officers and men in order to carry on the work of the Navy. It is useless to build ships unless provision is made to man, care for, and use them. The best results will surely be obtained by keeping ships and men at work developing efficiency in the lines of active service. Most of our ships and all of our shore stations are now short of officers, and with the completion of vessels under construction this condition will become more serious.

"The efficiency of officers is not limited to the line alone, but is felt in every corps of the service.

"BATTLE SHIPS V. TORPEDO BOATS.

"The lessons of the war in the East thus far are the same as those of the Spanish war with respect to the relative value and uses of battle ships, torpedo boats, and destroyers. Weight of metal, heavy guns, and hard hitting, whether at long or short range, still do the most effective work. The day of the battle ship is not over, and the sphere of the lighter vessels, while important, is auxiliary only.

"These conclusions, reached by the general board and the board on construction as the result of careful study of recent naval progress and present conditions, in the light of the events of the past few months in Eastern seas, confirm in a most striking manner your own views on the subject, expressed more than two and a half years ago.

"GENERAL STAFF OR BOARD.

"The question of the need of a general staff or board to serve the secretary of the navy in an advisory capacity was carefully considered by my predecessor. I do not feel that I can add anything of value to his discussion of the subject."

The *twenty-eighth* article is Secretary Taft's report on the organized militia, and the *twenty-ninth* contains the President's remarks on the Navy and the Army. The services should certainly feel gratified at the evident appreciation of their most pressing needs.

The *thirtieth* (General Wood's report) is full of interesting matter. He recommends a General Service Corps for all the work other than that required of an army in the field, all *police* work as it is called. This has been a need of the army for many years.

MILITARY EDUCATION AND TRAINING.

1. Training of Japanese Officers.—*A. and N. Gaz.*, Dec. 10.
2. The Education of the Cavalry Officer.—*Unit. Serv. Mag.*, Dec.
3. Military Training. Peace Maneuvers.—*Same.*
4. A Second West Point.—*Jour. Infy.*, Oct.
5. The American Lake Maneuvers.—*Same.*
6. The Ohio State Maneuvers.—*Same.*
7. The California Maneuvers.—*Same.*
8. The Manassas Maneuvers.—*Same.*
9. Rifle Firing and the National Rifle Competition.—*Same.*
10. How One Walks.—*Same.*
11. Scientific Coaching of the Rifleman.—*Jour. M. S. I.*, Nov.-Dec.
12. Panoramic Sketches in Campaign.—*Same.*
13. Umpires.—*Same.*
14. Requirements of a Maneuver Site.—*Same.*
15. Teach the Boys to Shoot.—*Same.*
16. Combined Maneuvers of the Regular Army and Organized Militia.—*Same.*
17. Cardinal Vices of the American Soldier.—*Same.*
18. Fall Maneuvers.—*Same.*
19. The English Landing Maneuvers on the Coast of Essex, Sept., 1904.—*Mar. Rund.*, Dec.
20. The General Service and Staff College.—*Jour. Cav.*, Oct.
21. Practical Problems for Ordinary Garrisons.—*Same.*
22. Peace Training of Officers.—*Same*, Jan.
23. Shall Subordinate Officers Learn Business of Generals?—*Same.*
24. An Umpire at the Army Maneuvers.—*Same.*
25. Suggestions to Young Officers.—*Same.*

The *first* of these articles is of unusual interest just now:

"Promotion from the ranks in the Japanese Army is impossible, and there is no Militia or back-door entrance, as it used to be called in our Service. The names of all candidates for commissions must be entered at the War Office and approved by the authorities. Candidates must be, either (a) graduates of a cadet school, or (b) graduates from some middle school licensed and recognized by the Gov-

ernment, whether public or private, or (c) students who can show that their education has brought them up to the grade required to obtain the leaving certificate of a middle school. In the two latter cases they must also have a written letter from the commanding officer of the regiment they wish to join, signifying his willingness to accept them eventually as officers in his regiment. As soon as they are accepted as candidates they join their regiments as privates, spending 12 months in the ranks as 'officer candidates,' so as to have a complete and practical acquaintance with all the duties of a common soldier, and are then sent for a year to study at the Military College in Tokio. Thence they return to their regiment, as aspirants, to acquire a practical knowledge of a subaltern's duties, and at last, about two and a half years from the time when they first entered as candidates, they are, if finally approved of at a meeting of the officers of their regiment, accepted and commissioned as sub-lieutenants."

The *fourth* article, by Col James S. Pettit, opposes Professor Tillman's views as to the need of a second West Point.

The next four articles on the maneuvers are all interesting and instructive.

In regard to the rest of the articles we have space only for a few remarks.

The *twelfth* is one of peculiar interest to the young officer, and has a permanent value; the *thirteenth* is also important; the *sixteenth* (by Col. A. L. Wagner, General Staff), and the *eighteenth* (by Col. J. Regan, 9th Infy.), are two excellent essays on the maneuvers.

The *nineteenth* is an interesting study of landing operations; the *twenty-first* is an excellent collection of practical problems in tactics for small garrisons; and the *twenty-fifth* contains some valuable advice to young officers by General J. Franklin Bell, the importance of which every officer of experience appreciates.

MILITARY HISTORY, STRATEGY AND TACTICS.

1. The War in the Far East.—*A. and N. Gaz.*, Nov. 26, Dec. 10; *Natl. Serv. Jour.*, Nov.; *Mil. Mail*, Oct. 21, Dec. 9; *Jour. Arty.*, Nov.-Dec.
2. Indian Defence and Army Reform.—*A. and N. Gaz.*, Dec. 10.
3. The Fall of Calcutta.—*Ind. Vol. Rec.*, Oct. 15.
4. Artillery in the Far East.—*A. and N. Gaz.*, Dec. 10.
5. A Retrospect and Prospect of War.—*Unit. Serv. Mag.*, Dec.
6. The Evolution of Modern Strategy.—*Same*, Nov.-Dec.
7. Some Lessons From the Russo-Japanese War.—*Same*, Nov.

8. The Heavy Artillery of a Field Army at River Crossings.—*Same.*

9. The Lessons of the Boer War.—*Jour. R. U. S. I.*, Nov.

10. War Notes.—*Same.*

11. Advantages of Machine Guns in Battle.—*Kriegs. Zeit.*, 9.

12. Sea Coast Defense.—*Jour. Arty.*, Nov.-Dec.

13. War Lessons for the Coast Artillery.—*Same.*

14. Japanese Instructions for the Employment of Artillery in Battle.—*Same.*

15. Boer Tactics in Germany.—*Jour. Infy.*, Oct.

16. The Era of Ironclad Warfare.—*Jour. M. S. I.*, Nov.-Dec.

17. German Ideas on the Role of Cavalry.—*Same.*

18. Remarks on the New Tactics.—*Same.*

19. Machine Guns.—*Same.*

20. Recollections of General Grant.—*Same*, Jan.-Feb.

21. An Echo of the Civil War.—*Same.*

22. Reminiscence of General Gibbon.—*Same.*

23. The Attempt of the Port Arthur Squadron to Escape.—*Mar. Rund.*, Nov.

24. On the Staff of Major V. Glasenapp.—*Same.*

25. The British Expedition to Lhassa.—*Same.*

26. The Problem of the Russian Baltic Fleet.—*Same*, Dec.

27. Five Years a Dragoon.—*Jour. Cav.*, Oct.-Jan.

28. History of the Fifth Cavalry in the Spanish-American War.—*Same*, Oct.

29. Romances of Two Wars.—*Same.*

30. The British Cavalry and the Lessons of 1899 and 1902.—*Same.*

31. The Cavalry of the Future.—*Same.*

32. The Fourth Cavalry with General Lawton in Luzon.—*Same*, Jan.

33. General French's Cavalry Charge at Klip Drift.—*Same.*

34. Tactical Problems and their Solution.—*Same.*

35. Cavalry Upon the Rear of the Japanese Army.—*Same.*

36. The Lessons of the Boer War.—*Same.*

The articles relating to the Russo-Japanese war in the Far East are utilized in the general papers on the subject, found elsewhere in this magazine.

The *fourth* article is of special interest to the field artillery, as illustrating a complete change of tactics:

"It is first noted that the Japanese artillery does not come into action in masses all at once, fire being opened from certain detached

batteries at an extreme range, with the object of compelling the Russian batteries to disclose their positions. If the Japanese succeed in this object, the guns are advanced to a suitable range and extended upon a wide front, in order that they may be less vulnerable. The officers take ample time to prepare for the opening and concentration of fire, and the guns do not fire until the desired conditions have been secured. The fire is both accurate and methodical, the range being determined by visible objects. If the enemy should be concealed behind a ridge, fire is first directed to the crest of it, and then, by increasing the elevation, the ground is swept with shell for a distance of 200 metres in the rear. * * *

"The Japanese make use of shrapnel and common shell in firing at the same object, and, as soon as they have reduced or silenced the fire of a battery, they endeavor, by pouring a rain of shells upon the ground in its rear, to destroy its ammunition train and make the supply of ammunition impossible.

"It would appear that the Russians owed their immunity at Tachichao to being completely concealed from view, at a distance of 500 metres, behind a ridge, and protected by a covering mass 24 metres high, which hid completely the flash of their guns. This appears to illustrate the general situation sought by the Russians for security, their indirect fire being comparable to that of siege artillery. Again, almost until evening, no movement of a vehicle has been allowed to reveal their positions. The guns have also been separated by an interval of 30 paces for further safety, while the observation of the effect of fire has been entrusted to observers on the flanks. At Liao-Yang, especially, it is known that the Russian artillery commanders were able to direct the fire over a considerable front by telephone and hand signals, and in this way the indirect fire of the guns was controlled. At the beginning of the war the Russian gunners had the fault of opening fire prematurely, of not properly masking their guns, and, with the object of facilitating the direction of fire, of placing their guns on too restricted a front, thus making them more vulnerable and helping the Japanese to get the range. A good telemeter on the system of Capt. Aubry, of the French army, has rendered the greatest service to the Russians in enabling them to find easily the range of the principal positions before action has begun.

"We are now able to see, as from the accounts of several other actions, that it is impossible for batteries exposed to the enemy, and under his fire, to bring up supplies of ammunition. The danger is also noted of placing batteries in position near prominent local objects, of which the range can be ascertained or may be known. Thus

the Japanese battery which took up a position near the village of Lioubiasa on the evening of July 28, was silenced by the well-directed fire which the Russians immediately brought to bear upon it.

"* * * Contrary to what was supposed in the beginning, neither Russians nor Japanese hurry the main force of their artillery into action. They have learned to use at the beginning, only the number of batteries necessary to attain the object required in the preliminaries, while they hold the main force of their guns in reserve until they are informed as to the action of their adversary, and particularly as to the position of his guns. Great attention is devoted to the concealment of batteries, and on both sides the concentration of masses of artillery on a narrow front has been abandoned. Such concentration has for its object efficient command of the guns and concentration of fire, but its result is to reveal the positions and to make the artillery particularly vulnerable. Both Russians and Japanese, therefore, spread their guns over a large space, and always use protected positions, their commanders often remaining on the flanks or in the rear.

" * * * Here are things to cause reflection, not only among gunners, but among officers of all arms who interest themselves in the relations which the several branches of the Service should have to one another, and the support which each should give to the other in action."

The *fifth* article is a reprint of Major A. P. Blockson's (5th Cav., U. S. Army), article, which appeared in the *Journal of the M. S. I.* This reprint in the British *United Service Magazine* is a marked compliment.

The *seventh* and *eighth* discuss principles which are embodied in our account of the Russo-Japanese War. They are both excellent papers.

The *ninth* is by the great German tactician, Major Balck, of the General Staff. We give a brief quotation:

"The war shows, in opposition to the view held in our Field Service Regulations, that firing lines can lie opposed to each other at close ranges by the hour without any decisive blow being struck. English officers find an explanation, which is also confirmed by their opponents, in the circumstance that the Boers could fire at close ranges without raising their heads from cover; and only left their protecting cover if the English rose to advance. At Spion Kop the firing lines lay only about 250 yards apart from sunrise to dark.

"In other cases, when the Boers had gained the fire superiority, they still waited and continued the fire. The English troops could

scarcely have held the position against an advance to storm. As this did not follow—rising up and retreating was synonymous with destruction—their power of resistance relaxed during the long fire action, and in order to get out of this apparently unbearable position. which was becoming more acute every minute and paralyzing every vigorous resolve, the only possible alternative seemed to be to lay down their arms. It only needed some trifling incident to have sent them flying in wild confusion. It is just in this that the importance of the storm attack lies. An energetic enemy does not give ground to lead alone; he will not willingly expose himself to certain destruction from a pursuing fire; he needs first the advance of an attacker determined to come to hand grips to force him to evacuate his position. The attacker will advance by rushes and creeping as near as possible to the defenders; any premature forward rush, any isolated advance of single units may jeopardize what has up to then been a success."

The *twelfth* is an article of a very high order and contains a mass of valuable matter, carefully digested, and presents the grave questions of military geography affecting the United States in the Pacific, the Gulf and the Atlantic very forcibly.

The *thirteenth,* by Major John P. Wisser, contains a brief summary of the important lessons for the coast artillery which the war in the Far East has furnished. We quote merely the conclusions:

"CONCLUSIONS.

"In view of the facts set forth above, it is evident that the great lessons to be learned by the careful study of this war are many and important.

"In the first place a certain degree of preparedness must be attained, depending on the geographical position of the country, and the distance over sea of the possible enemy. The time that will be available, however, after war has opened, must not be overestimated, since modern wars proceed with astounding rapidity.

"In the next place, command of the sea is essential for over-sea operations on land, and to enable the navy to fulfil its highest duties to attain this the home coast must be fortified to render it secure.

"Again, landings of large field armies on the coast will probably be an important feature of all future wars, consequently *coast guards* must be organized to cover the unfortified coast regions between the fortified harbors.

"The torpedo has become the most destructive weapon known to modern warfare, and every fortified port must have torpedo shore

batteries, submarine mines (where they are practicable), torpedo boats and submarine boats or submersibles, in sufficient number to aid properly the defense.

"All coast forts, exposed to attack on the land side, must be properly protected by land forts on that side, and have a proper infantry and artillery garrison to man the fortifications.

"Every coast fort must have a comparatively large number of rapid-fire guns to supplement the guns of heavy caliber, and to assist in the attack of torpedo boats, submarines or submersibles, especially in the vicinity of the mine fields.

"In position finding, systems with horizontal base lines must supplement the vertical base instruments, not only to replace the latter in case they are disabled, but also to cover dead angles and to attain the extreme ranges.

"These are the great lessons taught by the war, and their teachings should be carefully taken to heart and utilized by the world's nations."

ARTILLERY AND FORTIFICATION.

1. Artillery Rearmament.—*A. and N. Gaz.*, Dec. 10.
2. Armored Field Artillery.—*Unit. Serv. Mag.*, Dec.
3. Arrangement for Rapidly Loading Guns of Heavy and Medium Caliber.—*Kriegs. Zeit.*, 9.
4. Caisson or Limber With Shield.—*Same.*
5. Return Mechanism for Recoil Guns.—*Same.*
6. Effect of Torpedo Explosions.—*Jour. Arty.*, Nov.-Dec.
7. The Field Gun Question in Foreign Armies.—*Same.*
8. Artillery Material, U. S. Service.—*Same.*
9. Range Firing With Mortars.—*Same.*
10. Field Artillery Material, U. S.—*Same.*
11. French Mountain Artillery.—*Same.*
12. Japanese Field and Mountain Artillery.—*Same.*
13. Present Status of the Edison Storage Battery.—*Same.*

The *first* article brings up an old question:

"In a recent article in the *Times* a writer has drawn attention to the employment of the artillery in the Far East. Having related various episodes in connection with the campaign, he comes to the conclusion that the gun of the future should be the largest that can be employed, having due regard to the amount of mobility required.

"The *Times* correspondent appears to favor the use of a heavy gun. This was the conclusion reached by many officers at the end of the Boer War. In fact, the extreme theory then advanced was

that there should only be two arms, one heavy and one light—that is, that we should have horse artillery and heavy field artillery. Such a step would be antagonistic to many generally-accepted tactical ideas. It is, nevertheless, remarkable that the *Times* correspondent should be preaching the same artillery lesson now as was preached by many well-known officers after the South African War. Our tacticians adhere to the principle that field artillery should still be very mobile. We say very mobile advisedly, as the present scale of mobility provides for the guns being moved at a gallop on occasions."

The *second* article, by a well-known authority, Captain C. Holmes Wilson, Royal Field Artillery, has some valuable notes:

"In considering the application of armor to artillery, the first question to be answered is evidently this: Do the average losses incurred in battle justify the adoption of a mode of protection that must inevitably add to the weight of the gun and carriage used? It is clear that battles can only be won by the destruction or partial destruction of the enemy's *personnel*. If, then, the enemy can minimize his losses by using shields, he will be harder to overcome! Consequently, he is justified in adopting any device that can add to his chances of success. In this connection it should also be remembered that the old objections to taking cover do not hold. Seeking protection behind the shield of a mobile gun is a very different matter to digging a trench and getting into it. The gun will move, but the trench will not, and there is consequently sometimes a difficulty in getting men to leave it. The shield will, however, only be of use when the gun is stationary. It does not protect the teams, and will not cover the men when the carriage is on the move. It would consequently be rash to say that artillery may advance to infantry ranges, as such an advance must of necessity depend upon the nature of the ground. If the shields afford protection against rifle-fire, and the guns can advance unseen, then artillery will be able to move up to a closer range than it has done hitherto. In considering the relative advantages conferred by the use of shields on the attack and the defense, it seems to be clear that the defenders should be the losers. Hitherto the artillery of the attack has had little opportunity of protecting itself. The defenders, on the other hand, have generally had time in which to prepare their positions. Now, however, the attacking guns will carry their armor with them, and they will consequently be on equal terms with the defenders, as far as protection is concerned, except when on the move. Thus the adoption of shields appears to favor the assailant."

The *third* article contains a description (with illustrations) of a new patent by Schneider & Co., of Le Creusot, consisting of a load-

ing truck, on which is a loading tray, with rollers on its surface, over which the heaviest projectile may be rapidly propelled by the mere shock of the truck or its tray striking the base of the breech of the gun.

The *fourth* article contains a description (with illustrations) of a new patent by Krupp, consisting of a peculiar shield for a limber or caisson to protect the cannoneers from shell fragments falling at high angles.

WARSHIPS.

1. The Genesis of the Japanese Fleet.—*Unit. Serv. Mag.*, Dec.
2. Thirty Years of Naval Progress.—*Same*, Nov.
3. The Future of the Submarine Boat.—*Jour. R. U. S. I.*, Nov.
4. Injuries to the *Askold*.—*Jour. Arty.*, Nov.-Dec.; *A. and N. Reg.*, Dec. 10.
5. The *Cesarevitch* After the Naval Battle of August 10th.—*Same.*
6. Submarines.—*Same.*
7. H. M. S. *Black Prince*.—*Same.*
8. Japan's Sea Power.—*Same.*
9. Under-water Armor.—*Mar. Rund.*, Dec.
10. Changes in the World's Navies.—*Jour. R. U. S. I.*, Nov.; *Mar. Rund.*, Nov.-Dec.

TRANSPORTATION.

1. War on Wheels.—*Unit. Serv. Mag.*, Nov.
2. Types of Traction Engines for Military Purposes.—*Jour. R. U. S. I.*, Nov.
3. Mechanically Propelled Vehicles for Military Purposes.—*Same.*
4. Development of the Automobile.—*Kriegs. Zeit.*, 9.
5. The Use of the Bicycle in the Army.—*Jour. Cav.*, Jan.

The *first* of these articles relates to motor-cars and cycles:

"The recent maneuvers in Essex have taught some valuable lessons regarding the possibilities of the use of motor-cars and cycles, and ordinary cycles, in war. The great value of cars for conveying staff officers from point to point, and of motor-cycles for despatch-riding, was proved during the maneuvers of 1903; but never before have motorists been used as combatants. The improvement in the quality and speed of the cars used in 1904 has made it more difficult for a motor-cyclist orderly to keep in touch with the car to which he is attached, and it is doubtful if many machines would stand the strain

of this work for any length of time, as continued high speed is fatal to the motor-cycle engine as at present made.

"Let us consider how motor-cars and cycles may be used in future for war purposes, always supposing that the roads are fair. The former might very possibly be used to advantage for carrying siege artillery ammunition to the front. Should a raid on a bridge or railway be proposed, a party of engineers mounted on motor-cycles with a car or two to carry the heavy gear, and perhaps a Maxim or automatic rifle for defensive purposes, might very possibly succeed in their object, when no others could. A motor-cyclist might be attached to the cyclist scouts (keeping in touch, but well in rear of them on account of the noise) to take back any information, and to maintain communication with scouts on either flank. For such work the motor-cycles must be considerably lighter than those in general use; as to escape across country with a machine weighing 150 lbs. is nearly impossible. These motor-cycles should also be fitted with a really efficient silencer, and a free engine to render pedalling possible without removing the belt. For night work, especially, this would be most useful.

"Motor-cyclists should not be armed with the rifle, which cannot be carried on many machines and carried on the rider is more dangerous to himself than to any one else. A motor-cycle cannot be chucked down by the roadside like an ordinary one, when the rider wants to dismount in a hurry and fight. If he wants a weapon at all, he wants it in a hurry, and an automatic pistol or revolver would be much handier.

"Ordinary cycle infantry should be used in far larger numbers than they are. Supposing a force landing, not altogether unopposed, in a country at all resembling Essex; cyclist infantry might be landed first, almost as quickly as infantry, and would be far more use, to begin with, than cavalry—whose landing they would cover; but they should be in battalions, not in sections.

"To summarize the lessons learnt about motor-cycles. They must be light, of sufficient power, silent, and have a free engine."

The *third* is an excellent article on traction engines, and contains a good description (illustrated) of the new form, with *pedrail,* which promises to find extensive application in coast artillery as well as other military work.

MILITARY GEOGRAPHY.

1. Geography and War.—*A. and N. Gaz.*, Dec. 10.

2. The South of England as a Theatre of War.—*Jour. R. U. S. I.*, Nov.

3. The Siberia-East Asia Railroad.—*Kriegs. Zeit.*, 9.
4. The Panama Canal.—*Jour. M. S. I.*, Nov.-Dec.

MILITARY HYGIENE.

1. Military Hygiene (Prize Essay).—*Jour. M. S. I.*, Jan.-Feb.

SMALL ARMS AND EQUIPMENTS.

1. The Cavalry and the Lance.—*A. and N. Gaz.*, Nov. 26.
2. The True Valuation of Peace and War Firing.—*Kriegs. Zeit.*, 9.
3. The Automatic Rifle, Browning System.—*Same.*
4. Foot Gear for Soldiers.—*Same.*
5. An Entrenching Tool.—*Jour. M. S. I.*, Jan.-Feb.
6. Use of Carbine Sights.—*Jour. Cav.*, Oct.
7. Necessity for a Pocket Range Finder.—*Same.*
8. The Colt's Revolver.—*Same*, Jan.
9. The Webley-Fosbery Automatic Revolver.—*Same.*

The *first* of these articles contains some valuable matter by a recognized authority on tactics:

"The question discussed at the Royal United Service Institution on Thursday was one which has divided opinion in the Cavalry, and concerning which it is not surprising that various views should be held. The attitude of the authorities in regard to Colonel Mayne's lecture was truly singular. They appear to have been afraid of the subject being discussed at all, and the letter of the Chief of the General Staff somewhat curiously remarked that the lecture must be 'moderate in tone,' although it might be 'strong in argument.' Considering that Colonel Mayne came forward to oppose the use of the lance, or rather to maintain that the horse is the true weapon, with the sword and firearm as the best auxiliaries, it might have been supposed that the lecture would be welcomed. It was in harmony with the views expressed by Lord Roberts in the preface to the Cavalry Drill, and with the principles laid down by Lord Kitchener in India, and by Lord Dundonald in the Cavalry Drill for Canada. May we suppose that the subject is being reconsidered, and that the lance is not lost, after all; or was it that the authorities feared an expression of opinion by cavalry officers, which is pretty general among them, contrary to the official view? The essence of the new training is that shock tactics—the charge in close order—if not a thing of the past, must at least be relegated to the second rank. Lord Roberts has said that the change which has taken place in the cavalry, consequent upon the introduction of the new firearms, is as

great as that which occurred in the infantry when the crossbow and pike were replaced by the rifle and the bayonet; while Lord Kitchener, if he has not quite discredited the lance, has impressed upon the Indian Army that it is henceforth only an auxiliary to the rifle.

"Colonel Mayne, in his admirable lecture, put forward his arguments in a very persuasive manner, and supported his arguments by an effective appeal to history. Regarding the lance as having its use chiefly in the charge and the pursuit, he described it as an encumbrance in scouting and skirmishing, and maintained with much cogency that the charge is not dependent upon the hand weapon for its successful issue, but upon men and horses moving at speed and in mobile masses. The Thirty Years War, the Civil War in England, the French and German wars of the seventeenth century, the wars of Marlborough, Prince Eugene, Charles XII. of Sweden and Frederick the Great, the Napoleonic wars, and operations in Spain, Belgium, France, and Turkey in the last century, as well as our own small wars, were examined in order to discover what light they might throw upon this vexed question. Colonel Mayne was careful to restrict his observations to Regular cavalry only, and his conclusion was that the great traditions of the cavalry have been formed by swordsmen, whose successes balance any that can be adduced in the use of the lance. In short, he said, the presumed advantages of the latter weapon do not counterbalance its practical disadavantages. Indeed, to mention the contrary was to misconceive the use of cavalry, which depended chiefly upon the skilled employment of the horse in action. Where Col. Mayne carried his hearers with him was in his insistence upon the fact that the cavalry arm had lost none of its value, and that it holds a large place, not only in scouting and reconnaissance, and in skirmishing on foot or when mounted, but in charging down upon infantry shaken by fire, taken by surprise or without ammunition, and also in conducting or warding off pursuit.

MISCELLANEOUS.

1. Training War Dogs.—*Jour. Infy.*, Oct.

2. Wireless Telegraphy in Russian Military Field Operations.—*Jour. Arty.*, Nov., Dec.

ORGANIZATION, ADMINISTRATION AND MOBILIZATION.

1. Report of Chief of Bureau of Navigation.—*A. and N. Reg.*, Nov. 26.

2. Report of the Quartermaster General.—*Same; A. and N. Jour.*, Nov. 26.

3. A General Staff for the Navy.—*Unit, Serv. Mag.*, Jan.

4. Our Coast Defences. By Whom Should They be Manned?.—*Same.*

5. The Reorganization of the Indian Army.—*Same.*

6. Report of Chief of Artillery.—*A. and N. Jour.*, Dec. 3; *A. and N. Reg.*, Dec. 3.

7. The Army in 1905.—*A. and N. Gaz.*, Jan. 7.

8. Army Commands and Decentralization.—*Same.*

9. Report of the Chief Signal Officer.—*A. and N. Jour.*, Nov. 19; *A. and N. Reg.*, Nov. 19.

10. Report of the Chief of Staff.—*A. and N. Reg.*, Nov. 26; *A. and N. Jour.*, Nov. 26.

11. The National Significance of Universal Training.—*Natl. Serv. Jour.*, Jan.

12. A Scheme for Foreign and Home Service Armies and their Reserves.—*Same.*

13. Desertion and its Prevention.—*Proc. Nav. Inst.*, Dec.

14. Hygienic and Administrative Problems in German Kamerun (Africa).—*Mar. Rund.*, Jan.

15. Distribution and Mobilization of the Fleet (Great Britain).—*Same.*

The *first* of these is full of matter of interest to our people; we select a few extracts touching the more important points:

"Touching upon the need of a general staff or board the report says: Although it is too early to draw final conclusions from the war in the Far East, one cardinal military principle has received new and striking confirmation; that is, preparedness and the swiftness of action, which can be successful only with thorough preparedness. Readiness for immediate action on the outbreak of war requires that the whole field shall have first been maturely considered and that all probable operations and contingencies shall have been suitably provided for, down to the smallest detail whose need can be foreseen.

There is needed, therefore, an advisory body which shall not be under the control of any bureau, but responsible directly to the secretary in matters of naval policy. Such board shall be composed of officers whose experience in command afloat has given them an intimate knowledge and the condition and needs of the fleet and of the most effective manner of employing it.

* * *

"Attention is invited to a defect which is common to most military services, whether at sea or on land, namely, the advanced age at which officers reach the more important commands.

"The defect is not confined to the captains' list, but extends below to commanders and above to flag officers. Comparison with foreign services gives emphasis to our disadvantage in this respect.

* * *

"The following is considered to be the necessary complement of officers for a battleship of the latest type authorized—of 16,000 tons displacement, 16,500 indicated horsepower, armed with four 12-inch, eight 8-inch and twelve 7-inch guns, and having a secondary battery of forty-odd guns and two or more submerged torpedo tubes, viz.:

"Commanding officer, a captain; executive officer, navigator, ordnance officer, senior engineer officer, lieutenant commanders. Battery officers: Each 12-inch or 13-inch turret, a lieutenant, with an ensign in the ammunition handling room of each turret; each 8-inch turret, a lieutenant, or lieutenant (junior grade); intermediate battery, 2 lieutenants (junior grade), 2 ensigns, 4 midshipmen; ammunition supply, 1 lieutenant, 2 ensigns, torpedo officer, a lieutenant; assistants to engineer, 1 lieutenant, 1 ensign; signals, 1 ensign, 2 midshipmen.

* * *

"The great shortage of officers is nowhere more severely felt than in connection with the torpedo work in the Navy, both aboard the torpedo vessels and on board the larger ships. The proper development of the capabilities of this important weapon would require that all our serviceable torpedo vessels be organized in active cruising flotillas, fully officered and manned. This condition is not only the best for the preservation of the vessels themselves, but is absolutely essential to their efficient employment in time of war. The proper efficiency of the torpedo installation of battleships also requires that an officer be available to devote his entire attention as a divisional officer to his duty. And, in turn, to fit officers for torpedo duties, they should have a course of training of from four to six months, which involves their withdrawal for that time from other duties."

The *second* article contains much of general interest. We cull the following

"General Humphrey recommends the proposed increase in the commutation of officers' quarters already published in these columns, and he also recommends that the allowances of fuel for officers' quarters at posts situated between the thirty-sixth and fortieth degrees

of latitude be increased by one-half from September 1 to April 30; that north of the fortieth degree, from September 1 to April 30, the present allowance be doubled to meet the present conditions in the United States.

* * *

"The value of the work performed by the Army transports in the transportation of passengers, freight, remains of officers, soldiers, and employees, mail matter, and animals, upon the basis of the lowest obtainable rates offered for the same service, was $3,472,260.58. This shows a difference in favor of the Army transport service of $398,-236.50. In view of this showing, General Humphrey says: 'Another year's experience has only tended to confirm and emphasize the views expressed in my last annual report as to the utility, economy, and necessity of the Army transport system and the wisdom of continuing our present policy in its operation.'

"Another recommendation by General Humphrey is that $300,000 be appropriated for the puchase of heavy furniture for officers' quarters. It is pointed out that in the frequent and often long moves that officers of the Army are required to make under orders their household furniture is often badly damaged in transit. The saving in cost in the transportation of such furniture, which the Government has to pay on an officer's change of station, as well as in the cost of packing and crating these articles, which are difficult to handle, will be considerable.

* * *

"GENERAL SERVICE CORPS.

"The establishment of a general service corps for the department has already been carefully considered by this office, and was recommended with details as to its organization in a communication to the secretary of war, dated February 16, 1904. Briefly, it is desirable on the grounds of efficiency, economy, and discipline, and in time of war or emergency would furnish a body of trained men to instruct and direct appointees from civil life and civilian employes.

* * *

"The need of reliable and experienced men who could be made and kept available through such a corps was emphasized in the operations during the Spanish war, when officers of the department were greatly embarrassed and handicapped by the impossibility of securing experienced clerical and other help. Dependence had to be almost entirely upon civilians who had little or no knowledge of Army regulations,

orders, or the business methods of the department. Through this inexperience more or less confusion resulted, especially in the care and issue of and accountability for public property. The existence at that time of such a corps, the members of which could have instructed and directed the work of employees, would have been of inestimable benefit in expediting work, caring for property, and superintending the handling of supplies, baggage, checking of freight, etc."

The *third* article, by Admiral Fremantle, deserves careful consideration:

"In the remarks which I shall make on our naval administration, I hope it will be understood that I have no hostility to a Board, still less to our recent Boards of Admiralty, which have been composed of some of our best officers, and presided over by First Lords of marked zeal and ability, devoted to the service of their country.

"What, then, is my complaint? It is, shortly, that, notwithstanding this and that of recent years, there has been no faintness in demanding the large sums required for the service of the fleet, from varying views of what is required, our advance has not been continuous, and that changes of course and aim are frequent, so that the goal of efficiency at which all aim is blurred and indistinct.

"I do not propose here to give my view of what should be the composition of the General Staff I advocate, or to define its duties, but I hold that it should be a strong and influential advisory board without executive functions.

"In my view, we require a general staff for the Navy.

* * *

"In concluding this plea for a general staff to fix principles, and prevent, if possible, a run on certain ideas, which appear to me to be insufficiently thought out, I have dwelt long on the question of big battleships, which is of the highest possible importance. Even without quoting Nelson's oft-repeated dictum about numbers, it is clear that we want a large number of battleships, and that for general service the monster ships we are now building are less suitable than smaller vessels. In this view I am not alone, as it is held by Sir John Hopkins, Lord Brassey, and other authorities.

"The naval service is so loyal to the Admiralty that it is generally ready to accept the dictum of the day as being good policy, whether in shipbuilding or other matters, and civilian writers are deterred from pressing their views on these subjects through the fear of being

considered amateurs insufficiently conversant with the technicalities of the questions at issue.

"In the foregoing remarks I have endeavored to show that there have been violent oscillations in the pendulum of naval construction; how a theory of masts and sails threw us back to useless small craft; how our persistence in comparatively small, low free-board ironclads has been followed by a constant increase of dimensions of our battleships; how indifferent, protected cruisers were the rage ten years ago, while now all the cruisers being built are of enormous size and power—and in each case I regret to find myself somewhat in opposition to the shibboleth of the day.

"Now, I ask specially for battleships of moderate dimensions, and for fast, protected cruisers of 4,000 to 6,000 tons. These are, in my view, our pressing wants, and I ask for a general staff to look closely into our requirements from a political, a strategic, and a tactical point of view, as in this way alone can we secure that the hobbies of the day may not be unduly prominent, while steady progress towards naval efficiency will be maintained."

The *fourth* article touches a question that occasionally springs up in our own country:

"Certain things come round in cycles. Like visitations of disease, they are not endemic, but epidemic, and like such visitations their periodicity is irregular. Of such is the cry of some apostles of the extreme 'blue-water' school, who hold that our sea-coast defences should be manned by the Navy. There has been a recrudescence of this of late, and a few words on the subject may not be inappropriate.

* * *

"The defensive works of the present day, mainly thanks to Sir George Clarke's vigorous expression of opinion, are planned more with a view of relying on invisibility as a protective factor, than on elegant traces, deep ditches, counter-scarp galleries, and caponières; and a scene-painted barbette gun and shield, not easily distinguishable at a couple of thousand yards from the surroundings, is the only sign of what may be a very powerful work.

* * *

"The Garrison Artillery is a large and homogeneous force, embued with the traditions of the great Regiment, and justly proud of its efficiency. It is numerous enough to man all coast defence works abroad, and at Home Stations it is augmented by Militia and Volunteers. What is to become of this highly-instructed and well-organized

body of officers and men, and how is it suggested that the Navy should supply its equivalent? We have not yet heard of a glut of recruits for the Navy, nor, if we assume, for the sake of argument, that the requisite numbers could be available in a reasonable time, is it possible to contemplate seriously the hasty improvising of such a carefully constructed and scientifically-educated force as could take the place of the Garrison Artillery? The task of the iconoclast is always easier than that of the builder.

'No, it is better to leave things as they are. Let the sailor stick to his ship, and leave the soldier in possession of his fortress; while we trust to the solid good sense which is found in the higher branches of both services to think out plans of combined action by which alone the full value of our coast defences can be brought out."

The *sixth* article is a very strong report on our artillery:

"In his annual report to the Chief of Staff, the Chief of Artillery, after a strong presentation of the deficiencies in our present equipment, both in material and personnel, for coast defense, urges practically a change of policy on the part of Congress in approaching the completion of the work recommended by the Endicott Board. Heretofore the main concern of the War Department and of Congress in providing for our harbor defenses has been to secure the mere emplacement of the hundreds of heavy guns and mortars called for by the project. The Secretary of War states in his annual report that 334 of the 364 8, 10 and 12-inch guns projected, 376 of the 524 mortars projected, and 587 of the 1,296 rapid-fire guns projected have already been provided for by Congress and will soon be completed. The Chief of Artillery very pointedly calls attention to the fact that these guns and mortars are deprived of two-thirds of their value by day and of all, or nearly all, of their value at night by the lack of comparatively inexpensive accessories for which very little provision has been made. The principal accessories referred to are adequate submarine-mine defense and range-finding equipment.

"The practical efficiency of mines for harbor defense needs little comment in the light of recent happenings in the Far East, and the cost of completing preparations for mining our own harbors is estimated to be $3,819,420, or a little more than half the cost of a fully-equipped battleship. When it is considered that the necessary material for this part of our defense cannot be improvised and will take a number of months to secure and distribute, that it must all be in place immediately on the outbreak of war, that its cost is only about

one-half the annual appropriation for fortifications, neglect on the part of Congress to promptly provide for it would be inexplicable.

"The deficiencies in personnel, both commissioned and enlisted, for the Coast Artillery, are reported at length. There are not half enough officers and men to man even the guns already mounted. It takes from one to three years to train a coast artilleryman. Even these, when trained, refuse to re-enlist. Extra pay for gunners and other specially trained men is the only means of retaining their services. This has proved practically effective in the Navy, and it needs no argument to convince that it would prove efficient in the Coast Artillery. Neither the number nor pay of our artillery gunners is sufficient to provide one for each place which must be filled in war. The men who can hit, and who we know in advance can hit, are the men wanted, and they are wanted when war is declared, not a year or two afterwards.

* * *

"The lack of organization and the miserably inadequate force of officers for our Field Artillery must be a revelation to those not personally acquainted with the subject. No less than a regiment of field artillery has been employed as a unit thus far in the Russo-Japanese War. The field artillery of all European armies is organized into regiments or brigades of two or more regiments, just as are the cavalry and infantry. No higher organization than the battery is recognized in our law."

The *seventh* article relates to British Army organization:

"When the year 1904 opened the air was full of rumors and projects concerning Army Reorganization. The War Commission had placed in a cruel, naked light our military deficiencies, but there was a cheerful hope that better times were coming at last.

* * *

"At the opening of a new year it is fitting to call the attention of the authorities to the gravity of the present situation, the more so because we are even now contemplating the entirely satisfactory results attained by an Army well organized for the work which it has to accomplish. The Army Commands are to be reorganized, but it is very essential that we should have some official explanation of what is now proposed to be done in regard to the Army itself, and the presentation of the Army estimates, which are being prepared, will furnish a fitting occasion. A great deal is due to the officers of the Army, who, insufficiently paid, give up their lives to the Service, but

whose careers have been unsettled and whose interests have not received the consideration they deserve. As to the scheme of Army reorganization, we have so often pointed out its defects that it is needless to discuss them specifically."

The *eighth* article relates to the same subject:

"A special Army Order, dated yesterday, has been issued dealing with the reorganization of military commands and staff in the United Kingdom. These instructions are substituted for those contained in Sections I. to IV. of the special Army Order dated March 4, 1902, instituting the Army Corps system; and as regards the division of the United Kingdom into commands they will come into effect from February 15 next.

"COMMAND.

"The United Kingdom, exclusive of the area of the London district, will be divided into seven commands.

"In each command there will be a general officer commanding-in-chief who will be responsible for the training, efficiency, and discipline of the troops, and for the administration of the command. For the purposes of organization for war, training and instruction of troops, education of officers, execution of schemes for maneuvers, field operations, etc., the general officer commanding-in-chief will be assisted by officers of the general staff. To the staff of the general officer commanding-in-chief there will be appointed an officer, to be styled major-general (or brigadier) in charge of administration, who will be entrusted with the administrative services of the command. This officer will exercise his authority by order of the general officer commanding-in-chief, and the latter will delegate to him such extended powers as will enable him to deal with all administrative matters, which do not involve questions of principle or policy; and upon all such matters he is authorized to correspond with the War Office direct.

"Under the general officer commanding-in-chief the command of the troops will be exercised in the following manner:—(*a*) Field troops (Regular Army); by divisional and brigade commanders. (*b*) Coast defence troops (Regular and auxiliary); by specially appointed officers. (*c*) Grouped regimental districts; by group commanders. (*d*) Auxiliary Forces; under special arrangements."

The *ninth* and *tenth* articles are referred to elsewhere.

The *eleventh* article is by Mr. T. C. Horsfall, the well-known educationalist, and relates to the subject of compulsory military service in England:

"And it will be seen by any one who thinks carefully about the matter that no country can have a very good influence on the conditions of life in its dependencies or in other independent countries unless it establishes within itself the conditions which are most conducive to the welfare of all classes of its own people. I wish, therefore, to consider the question whether we ought to have a system of national service, first and chiefly in relation to the subject of the welfare of the inhabitants of Great Britain and Ireland. For my purpose I must find a criterion of welfare. * * * I will assume that that country has the highest degree of welfare in which the level of physical, mental, and moral health and strength is highest, in which the largest proportion of the people reach a high level in these kinds of health, and in which the greatest and most intelligently-directed efforts are made to prevent any part of the people from falling below a high level. * * * No one who has studied the social systems of France, Switzerland, and Germany will doubt that if we accept my criterion of real welfare Great Britain has far less of it than has Germany and Switzerland, that far less effort has been made and is being made here than has been made and is being made in those countries, to give the mass of the people the power and the will to reach a high level of physical, mental, and moral health. The conditions needed for the attainment of both the power and the will to reach a high level are: (1) those which give knowledge of the existence of right modes of life, train the heart and mind to desire it, strengthen the will to resolve to attain them, and give body and mind the habits of living rightly. These conditions are summed up in the phrase 'good education of the young.' (2) Another set of conditions are those which are covered by the words 'good environment.' A human being, to have a chance of attaining a high level of physical, mental, and moral health must have many favorable conditions in his environment which he cannot create for himself, which only the community can provide. In respect of both these sets of conditions, the community in this country is doing less by far for the majority of its members than are the Swiss and German communities. For a very long time, till 1870, this was the only Protestant country which had failed to provide itself with a national system of education. Since 1870 a large amount of money and a good deal of work, since 1902 a much larger amount of money and of work, have been given to the development of our national system of education, but in respect of attention to buildings, to training of teachers, and to curriculum we still lag far behind Germany and Switzerland, and, I believe, France also.

"Even if it were true that the class which supplies us with the

largest proportion of those of our recruits who come from large towns, and which every one admits to be of miserable physique, is much inferior to working men who are more regularly employed, that class is a very large one, and on the hypothesis that it is much inferior to the rest of the community, what a misfortune and disgrace it is to us all that we allow so large a proportion of our race to live under conditions which produce the alleged inferiority.

"But the belief that the class which gives us most of our town soldiers is much inferior to the rest of the town population has no sound foundation: it is the product of optimistic reasoning which refuses to take account of disagreeable facts. It is a belief very common among authorities who have a natural wish to believe that the conditions of life in the towns, for whose state they are partly responsible, are quite tolerable, if not very good."

MILITARY EDUCATION AND TRAINING.

1. Military Education.—*Unit. Serv. Mag.*, Jan.
2. The Training of an Umpire Staff.—*A. and N. Gaz.*, Dec. 31.
3. Instruction of Naval Ordnance Officers.—*A. and N. Jour.*, Nov. 19.

The *first*, by Colonel A. W. A. Pollock, the editor of the British *United Service Magazine*, relates to the military education of British officers.

The *second* has some points of general interest, well deserving attention:

"In the category of umpires there should, of course, be both strategic and tactical critics of maneuvers. In the case of the recent maritime expedition to the coast of Essex, the strategic umpires were virtually the War Office authorities, who set the problem to the troop-leaders and naval units with certain limitations. Into a discussion of the strategic aspect of the question I do not propose to enter; but the tactical critic has well-defined functions, which cannot be better outlined than by an extract from the manual of Combined Training: 'Umpires should, by their decisions, produce effects which in war are likely to result from the actions of the combatants. They must endeavor to prevent situations arising which would be impossible in war.' This quotation undoubtedly implies realism, based upon scientific observation and actual experience of war, or at least a mind receptive of the very best second-hand information on up-to-date warfare.

"To demonstrate the necessity for careful training of umpires, I would venture to tabulate some of the qualities required in officers who venture to hold the scales in mimic warfare, perhaps the most

important of all peace duties. Thus (1) The umpire must have, or acquire, the ability to estimate the maneuvering power of troops of all arms. (2) He must be gifted with the tactical eye and keen-sightedness in appreciating the effect and volume of fire, and the influence of ground on maneuvers. (3) He must be a many-sided man and instinct with the spirit of each arm of the Service, or otherwise he will be unreliable when attached to other than his own arm. For this reason he should be attached to each branch of the Service while under instruction, and should be shifted from one to the other at short notice. By this means he should imbibe the spirit of each arm and understand its idiosyncrasies and temper. (4) Last, but not least, he must be quick in forming and delivering judgments and autocratic in the exercise of any delegated powers, to stop the fight, march, or what not, more particularly when vital principles are at stake. (5) To this list I would add the gift of imagination, because umpires should be able to make allowances for the *vis viva,* or inertness, as the case may be, of troops who have undergone considerable fatigue—for instance, when going into action after a long march."

The *third* article relates to the work of Rear Admiral N. E. Mason, Chief of the Bureau of Ordnance, U. S. Navy, in his efforts to develop his department and the officers detailed to duty in it. The scheme evidently meets with general approval, and Admiral Mason's experience and energy will, no doubt, enable him to carry out effectively the work he has planned:

"Rear Admiral N. E. Mason, Chief of the Bureau of Ordnance, has addressed a circular letter to the officers selected for special ordnance duty under that bureau, and who are to be distributed between the bureau, the naval gun factory and the naval proving ground at Indian Head, each officer devoting a certain time to each of these places. The Admiral's instructions are intended to acquaint the officers who are at the beginning of their career as ordnance officers with the views of the bureau as to the scope of their work during their present and future assignments to ordnance duty. Mention is made of the action of the Secretary of the Navy in appointing a board of officers to devise a system meeting the requirements of the Service for officers specially equipped for the technical ordnance work. This board recommended that a certain number of young officers be detailed each year for a course of ordnance duty and instruction and that they be allowed at least one year of shore duty on their first detail and at least two years on subsequent details.

"It is further pointed out that the plan contemplates the utilization of these officers' services for such ordnance work as may be ap-

propriate to their rank and experience, but it is not intended that such duty shall be claimed as a right or that officers who have qualified as ordnance experts shall be exempt from the duty of maintaining a high standard of proficiency in other branches of the Service. The plan provides that the first tour of shore duty shall be divided between the bureau, the gun factory and the proving ground, and so far as practicable, the officers on this special duty will from time to time be employed in connection with the manufacture and inspection of material. They will be given opportunities to visit the various manufacturing establishments engaged in such work for the bureau."

MILITARY HISTORY, STRATEGY AND TACTICS.

1. The War between Russia and Japan.—*A. and N. Gaz.*, Dec. 3-Jan. 7; *Jour U. S. Arty.*, Nov.-Dec.; *Marine Rundschau*, Jan.; *Mil. Mail*, Dec. 2-Jan. 6.

2. Sir Evelyn Wood.—*A. and N. Gaz.*, Jan. 7.

3. Artillery Tactics.—*Same*, Dec. 31.

4. Bunker's Hill, 1775.—*The Tiger and the Rose*, Jan.

5. Our Coast Defences: By Whom Should They be Manned?—*Unit Serv. Mag.*, Jan.

6. Declarations of War.—*Same.*

7. An Asiatic Conqueror: Tamerlane.—*Same.*

8. Minor Expeditions of the British Army from 1803 to 1815.—*Same.*

9. A Study of Attacks Upon Fortified Harbors.—*Proc. Nav. Inst.*, Dec.

10. Operations of the Navy and Marine Corps in the Philippine Archipelago.—*Same.*

11. Methods of Estimating the Coal Endurance of a Naval Vessel.—*Same.*

12. Memorabilia of the Old Navy.—*Same.*

13. The Battle of Ciudad Bolivar and the End of the Revolution in Venezuela.—*Same.*

14. Crossing Rivers.—*Unit. Serv. Mag.*, Jan.

15. The Beginnings of England's Sea Power in the Mediterranean.—*Mar. Rund.*, Jan.

The *first* of these articles are utilized in the papers on the Strategy and Tactics of the War. We quote only from the *Army and Navy Gazette* here:

"Port Arthur has fallen, and the immediate result has been that the prospects of peace have been widely discussed. It has also been assumed that the Second Pacific Squadron must be recalled. We see

no reason to assume that because of the capitulation of the fortress the war should cease, or that, for the same reason, Rozhdestvensky should return. It is not easy to understand why the Russians should be more inclined for peace at this moment than before. Nor are they more likely to submit now to the only conditions which Japan could offer them. It is more than ever essential to Japanese independence that the Russians should evacuate Manchuria, should disarm Vladivostok, should restore Saghalien, and should engage never again to attempt the maintenance of a powerful fleet in Pacific waters. Everything points still to the fact that the war is essentially a naval war, and for this reason we take it that just as the war is not likely to come to an end with the destruction of the fortress which held the first Pacific Squadron, so, if Russia is to win, she must not stop Rozhdestvensky. If Stoessel's engineers have done their work completely there will be very little that is effective for war purposes to be made out of the wrecked vessels in Port Arthur for some time to come. From a naval point of view, then, Japan is not very much better off than she was when she first shut up the fleet in the Manchurian fortress. She is relieved, it is true, of the necessity of watching that force and blockading the harbor, but in point of view of numbers and strength, her fleet has not been directly benefited by the success of her arms in the Kwang-tung peninsula. She has gained time to recruit the warworn vessels that for nine months have been battling in the Yellow Sea, and to give to her ships a refit of which they must have been in urgent need. But she starts on the new naval campaign with a fleet diminished rather than increased in numbers and strength, albeit with the immeasurable advantage of its *personnel* being highly trained at sea, and flushed with the ardor and energy bred of continued success."

EDITORIAL NOTES.

PROTECTION OF WARSHIPS AGAINST TORPEDO ATTACK.

The experiences of the war in the Far East have indicated the necessity for some change in ship construction which will enable a battleship or cruiser to contend against torpedo-boat attack and the smaller varieties of submarine mines.

The nets formerly used as a protection against mobile torpedoes are no longer adequate.

The automobile torpedo has become so accurate and deadly a weapon that warships must either remain beyond its range, and must therefore increase their fighting ranges (which appears to be impracticable), or some protection must be found for them against the effect of this missile.

Increase in fighting ranges means increase in power of guns, since the guns of a warship (at fighting range) must be capable of perforating the heaviest armor of the enemy's ships. An increase beyond the limit of the effective use of the torpedo would be too much to expect of modern ballistics.

There is, therefore, but one remedy, and that is to give the warships sub-water protection against the torpedo.

A German naval constructor has recently proposed a system of protection which promises good results, and is based on sound principles.

A torpedo exploding under water is a very different phenomenon from a projectile striking a ship. An artillery projectile acts by a blow, due to its energy of motion, most of the latter being utilized in the required direction against a ship's armor or other target. In case of an armor-piercing solid shot the effect is entirely due to the energy of motion, in case of a shell the explosive effect of the bursting charge is added, the energy of motion still acting to direct the fragments.

In case of a torpedo the effect is practically entirely due to the bursting charge (usually 200 or 300 pounds of guncotton), and this effect is a pressure exerted almost equally in all directions against the entire surrounding medium. A ship's side, therefore, when a torpedo explodes in contact with it, receives but a

small portion of the explosive effect, namely that which is subtended by the parts affected as viewed from the center of the explosion.

Now, it is known that the rate of diminution of effect (in case of a torpedo) due to increase of distance from the center of explosion, is very rapid. At five feet, for example, the effect of a gun-cotton torpedo is only one-tenth what it is at the point of contact. Consequently, if the torpedo can be made to explode at five feet from the real armor of a warship, this protective armor need be but one-tenth as thick as if it were at the point of contact.

This is the principle on which the proposed protection of warships is based.

It is proposed to construct the ship's under-water part of a triple bottom, the outer a thin plate of armor, the inner the real armor protection, at a distance of five feet from the outer, with a third plate inserted between, the whole divided into water-tight compartments, giving a cellular structure. The diminution of the effect of the explosion of a torpedo on the outer skin, due to the distance of the inner, or real armor protection, can be increased by filling the compartments with water, coal, cork, etc.

The additional weight necessary to give a battleship this protection is only 550 tons, and a cruiser requires only about 350 tons additional weight. Moreover, the triple bottom and its cross-pieces and braces, so strengthen the framework of the vessel that a reduction in strength of material can be effected elsewhere.

This system also protects against under-water hits of artillery projectiles, always the most dangerous to warships.

Such protection of warships appears, therefore, perfectly practicable, and does not in any way interfere with any other necessary qualities, such as speed, draught, etc.

The French have already been experimenting with complete armor protection for the ships' bottoms, but the increased weight would probably be too enormous for such a system. The method here described is therefore far more practicable. The range and accuracy of the torpedo is being continually increased and improved, and some measures in this direction must be taken sooner or later. It is, therefore, advisable to give this important matter early attention.

PAY OF ELECTRICIAN SERGEANTS.

The government is now educating at considerable expense the *electrician sergeants* necessary for caring for the electric plants installed at all coast forts. The pay of these men, however, is so small that commercial companies all over the country are

continually on the lookout for such men, and when their term of service is up, induce them, by the wages offered, to leave the service and enter civil life.

It would appear that if these men are so valuable to these commercial houses, they are quite as valuable to the government, but thus far the latter has closed its eyes to the fact.

An increase of one-half their present pay would induce these men to remain in the service, which would then have the benefit of the education and experience it has given them. But since commercial companies outside are willing to pay them two or three times their army pay, with chances of promotion besides, it is no wonder they leave.

The certainty of government pay, and the prospect of going on the retired list in old age would be enough (with a small increase in pay) to hold them. But as it is, they generally prefer to take their chances in civil life.

WIRELESS TELEPHONY.

Wireless *telegraphy* has had a most remarkable development during the brief period since its discovery, and its applications for military use have become very extended and important.

Nevertheless, it still possesses the great objection, for military or naval use, of lack of secrecy. The messages can still be read by the enemy, provided he possesses the proper apparatus, as well as by any friendly receiver, for whom the messages are intended.

Recently, however, the Siemens-Schuckert works in Berlin (the great manufacturers of search-lights) have developed a system of wireless *telephony* which possesses the essential quality of secrecy in a satisfactory degree, and which is, moreover, rapid, certain and convenient.

The principle of action of the apparatus is the peculiar quality of selenium (when properly crystallized by annealing), by which it varies its conducting power for an electric current according to the amount and intensity of the light falling upon it, in other words, the principle of the Photophone.

The apparatus consists of two parts, that at the sending station and that at the receiving station. At the former is a search-light, its feeding current passing through the primary of a transformer, the secondary being in circuit with a sensitive telephone mouthpiece (carbon transmitter or microphone), and its battery; at the receiving station is a parabolic reflector with a selenium cell in its focus, connected in circuit with a telephone headpiece (or receiver).

By speaking into the transmitter at the sending station vary-

ing currents are produced in the local telephone circuit, which, by means of the transformer, increase or diminish the strength of the current which feeds the arc lamp of the searchlight, causing changes in the intensity of the light of the searchlight beam. This beam is sent to the distant, or receiving, station. The variations in the intensity of the light are not perceptible to the eye, but when they affect the selenium in the parabolic mirror, the local current through the telephone receiver, at the distant station, is varied, due to the varying resistance of the selenium under the influence of the variations in the light falling on it, consequently the original sounds are accurately reproduced.

With a 24-inch searchlight and a 36-inch parabolic mirror at the receiving station, a distance of 10 miles has been covered. With a more powerful searchlight (they are now made up to 60-inch) and a larger mirror, far greater distances could be covered, but the curvature of the earth would soon put a limit to the distance practicable.

The focus of the receiving mirror must be accurately in the axis of the beam, consequently, no other mirror could take off the messages, and since the variations in intensity of the searchlight cannot be detected by the eye or by other means, this system is entirely *secret*.

The advantages of using such a system between the ships of a fleet, between the forts of a fortified harbor, between the forts of a seaport and the fleet or scout ships outside, or, finally, between a besieged place and any friendly station or portion of the army, are evident.

By special processes used in its preparation the sensitiveness of the selenium plate has been greatly increased. The ratio of its conducting power in the dark to that under the influence of a 16-candle power incandescent lamp was until recently only as 1 : 3, but when prepared by these later processes it is as 1 : 120.

The future of this important discovery cannot be predicted, but it certainly promises to be very important in its military applications.

SERVICE SALAD.

Readers of the "United Service" are cordially invited to contribute to this department items of either fact or fancy, grave or gay, instructive or only entertaining; in short, any literary flotsam and jetsam likely to interest our subscribers.

FAMOUS SURRENDERS.

A RETROSPECT SUGGESTED BY THE FALL OF PORT ARTHUR.

The tragic element underlying every great surrender in history is not wanting at Port Arthur. Since the beginning of the bombardment, last February, the trend of affairs has been almost unbrokenly to the advantage of the Japanese, and it only remains to conjecture the spirit in which the gallant defenders of the fortress conveyed to the triumphant enemy their inability to continue an even struggle. The final act of the drama has been played out again and again in the world's records of capitulation, the curtain has been rung down repeatedly upon a heartbroken commander, a suffering and dejected garrison, a generous but inflexible conqueror; the story of one siege differs from the story of another most essentially in the matters of detail, and yet in the spirit of the surrender lies a world of significance.

Take the two disasters in the Franco-German War of Sedan and Metz, and compare the genuine cry of despair from Napoleon III., who, "betrayed by fortune, had lost all, and had placed in the hands of his conqueror the sole thing left him—his liberty," with Bazaine's pompous address to his soldiers: "Vanquished by famine, we are compelled to submit to the laws of war in constituting ourselves prisoners. At different epochs of our military history, brave troops, commanded by Masséna, Kleber, and Gouvion St. Cyr, have experienced the same lot, which detracts not from military honor, when, like you, they have so gloriously performed their duty to the extreme of human endurance." This when surrendering a fortress and garrison of the first order to a besieging army only slightly superior in numbers, while guns and ammunition were plentiful, and food supplies were at least sufficient for another week's consumption! Napoleon, on the other hand, made no attempt to conceal the finality of his disaster as he lingered in the garden of the Belgian weaver's cottage, where negotiations had been held, a broken, despondent figure, dressed in a jaunty red cap with a gold border, a black paletot lined with red, red trousers and white kid gloves.

The note of inevitability was struck perhaps as fully by Gen. Lee in the American Civil War, although he had been saved the mortification of proposing a surrender by Gen. Grant's letter: "The result of the last week," he wrote to Lee on April 7, 1865, "must convince you of the hopelessness of further resistance on the part of the army of Northern Virginia in this struggle." Two days later a meeting was affected at Appomattox, and this surrender, of which

the victory of Five Forks was the prelude, practically ended the war, the remaining armies of the Confederates laying down their arms one after the other. Lee knew when the end had come. Not so Napoleon I., whose letter to the Prince Regent consequent on Waterloo can only be regarded as a diplomatic attempt to gain time for a fresh rally of forces. "Exposed to the factions which distract my country," he wrote, "and to the enmity of the greatest Powers of Europe, I have closed my political career, and I come, like Themistocles, to throw myself upon the hospitality of the British people. I put myself under the protection of their laws, which I claim from your Royal Highness, as the most powerful, the most constant, and the most generous of my enemies."

A manly confession of defeat was that made by the Duke of Gordon at the capitulation of Edinburg Castle in 1689 to the Earl of Leven. "Gentlemen and soldiers," he said, "I know not wherein I have been unkind to any of you, but if I have ever wronged any man in your ranks, let him speak ere we part forever. Do not brawl with the newcomers, for you are too few to conquer and too many to sacrifice." Gen. Gordon's message of defiance was: "When you, Mahdi, order the Nile to dry up, and walk across with your troops and come into Khartoum to me and take me, then I will surrender the town to you, and not before." Little as we know of the details accompanying the fall of Khartoum, it may be safely assumed that when the relief expedition reached that city, to find it had fallen into the hands of the Mahdi two days previously, Gordon had surrendered nothing save his life.

An unsatisfactory capture was that of Sebastopol, since the enemy had fled, leaving behind a smoking mass of ruins. Zutphen fell through a ruse, soldiers being introduced into the town apparelled as Flemish country women, their baskets filled with swords and loaded pistols. One of the most bloodless capitulations, considering the importance of the fortress surrendered, was that of Gibraltar, wrested from the Spaniards in 1704, our total loss in gaining this important acquisition to the crown being sixty men killed and 216 wounded. On the other hand, Lucknow was the scene of dreadful bloodshed, when the siege was raised by Sir Colin Campbell, no quarter being given. It was said that after the massacre of Cawnpore the soldiers divided among them the tresses of a murdered girl and swore that for every hair of her head one sepoy should die. At the surrender of the Bastille in the French Revolution there was no fighting, the governor, De Launay, after making a hesitating defence, capitulating on a promise of safety for all the garrison. A picturesque surrender was that of Cetewayo, who was captured on the 29th of August, 1879, by Major Marter during the Zulu war. Troops had been pursuing the chief since the 12th of the month, and he was finally tracked to a deserted kraal in the Ngome forest. Major Marter himself rode to the entrance of the hut and called upon Cetewayo to yield. "Enter," was the reply; "I am your prisoner." From motives of prudence Marter refused, again summoning the Zulu chief. Thereupon the unfortunate Cetewayo, weak, weary, footsore, and very sick at heart, came forth from the kraal, and repulsing, with a remnant of dignity, the Dragoon guardsman who ventured to lay hand on him, said: "White soldier, toch me not—I surrender to your chief."

The capitulation of Cronje and his four thousand men on the anniversary of Majuba Day, 1900, will be remembered as long as any incident of the Boer war. An onslaught made by the Canadians, who had entrenched themselves eighty yards from the Boer position in the river bed at Paardeburg, was greeted not by a storm of musketry, as had been expected, but by the appearance of three white flags hastily thrust above the parapet of the Boer trenches. Then a horseman appeared, carrying another white flag, and intent on arranging a meeting between the generals. Forth from the lager came presently two men, one mounted on a white pony, in his hand a sjambok, wearing a brown felt hat and a huge overcoat, nothing of his face visible but a thicket of hair and two glowing sparks for eyes. This was Cronje, who had kept the British Army at bay for ten days with no better shelter than could be afforded him by a deep river bed. "I am glad to meet so brave a man," said Lord Roberts, but he refused to accept anything short of unconditional surrender. Cronje's reply to the terms of the capitulation was short, but effective : "Ja," he blurted out.—*London Globe.*

THE DAY OF RECKONING

We look upon christmas with hearty good cheer,
And blithely we learn to say " Happy New Year!"
We welcome Thanksgiving with turkey and pie
And wait with patience for Fourth of July.
But the day that we flout
And would fain do without
Is the first of the Month.
The patriotic Frenchman has cause to remember
The glorious deeds of a day in September,
And proudly the Irishman flutters the green,
Defying all serpents on March Seventeen—
But who ever heard
A respectably word
For the First of the Month?
When you shrink from each shadow that falls on your sill,
When every letter incloses a bill,
When the phrase "Please Remit" adds a savor of spice,
When you're taxed for your gas and you're dunned for your ice—
Why should we applaud
That delusion and fraud,
The First of the Month?
What day brings the rent-getter, bill-on-the-spot,
Or a note from the doctor you almost forgot?
What day brings the grocer, revengeful and solemn,
To scare you to death with an itemized column?
Be you monarch or peasant,
It's hard to look pleasant,
On the First of the Month.
When you're spending the most and you worry the least,
Still a glummy old skeleton sits at your feast,
Who grudges each mouthful and Stifles your joy
And croaks in the midst of your laughter: "My boy,
You are lavish to-day;
But, great Scott, how you'll pay
On the First of the Month!"
If I were a king I would try to be wise
And the days of the calendar neatly revise.
The months and the seasons untouched I would hold
And feast days and fast days I'd leave as of old;
But the world to improve
I'd completely remove
The First of the Month.

WALLACE IRWIN.

THE STORY OF THE ROTHSCHILDS.

Thackeray says: "And I do for my part, heartily wish that some one would leave me a trifle—say twenty thousand pounds—being perfectly confident that some one else would leave me more, and that I should sink into my grave worth a plum at least."

The parents of the founder of the world-famous house of Rothschild were humble German Jews. They died when their boy, Meyer Anselm, had not reached his teens. He had been given a little schooling and looked forward to becoming a scnoolmaster when he was thrown solitary on the world. It was the year 1754. The French Republican theories of the "Rights of Man" to be free and equal were merely in seed, and the local and state restrictions banned the Jews into cultivating detested trades. The boy Meyer wandered from fair to fair, barefooted, ragged, shouldering a bag for his miserable articles of traffic. Young as he was, he displayed an aptitude for the old coin-collecting pursuit—very needful in Germany, sub-divided by petty principalities, each with its miniature mint.

A Hanoverian money dealer remarked his keenness, and took him into his counting-house, proving a hard master, but training him so thoroughly, that, before he attained his majority, he started as a money-changer in that capital on his own account. After three years, he returned to his native city, Frankfort, where he opened a shop in the Jewry, designated by a red shield (*Rothschild,* in German), which sign became the ægis of his family. He dealt in coins, jewellery, and clothes of the French nobles flying from the wrath of their uprisen bondmen (it was 1780-'5). His course was not unique, for everybody on the borders of the seething cauldron bought of the bewildered fugitives. His lord, William I. of Hesse-Cassel, a selfish, haughty, avaricious ruler, whose love of gain was only surpassed by that for his order, turned his palace into a hotel so as to fleece them, and sold his army to England for suppressing the revolution of her American colonists. This ingenious prince exerted himself to remain neutral in the Napoleonic campaigns but the Consul and Emperor was clearly informed, and aimed at him straight after Jena, 1806. The oppressor, who had amassed millions of dollars by extortions, grain and forage dealings, and the aforesaid trade in grenadiers, was forced to flee, and visited London and Denmark, the better to be out of the eagle's talons. Unable to carry away his treasure, he confided it to Meyer Anselm, whom he had already employed in minor matters. The story goes that the Republican column, whose pioneers had the most artful tests at hand for ferreting out buried hoards, did unearth the crock of gold of the Jew himself, some £5,000, which was confiscated for his obstinacy as respected the Hesse-Cassel trust of £50,000. But, as the money-dealer had easily and rapidly transmitted the larger amount to his son Nathan in London, he might so easily have included his own in the draughts that it is more reasonable to believe the Liberators of Mankind only extracted a sort of tax.

The outcome of the Elector William's sojourn in Denmark was a State loan of a million, which he obtained for himself and his coadjutor, *Rothschild.* Thereafter, all through the contest with Napoleon, this heap of gold, continually augmented by old Anselm and his five sons, played its ponderous part. It equipped the 14,000 Black Brunswickers sworn to "Death or Vengeance!" nourished the *Tugendbund* (the aristocratic Elec-

tor little foresaw an age when the Nihilists would form a murderous league against crowned heads); furthered Castlereagh in his filling Saxony with a million fighting men, and fostered innumerable enemies to the Emperor of France. Uninterested in the politics of the Gentiles, in 1802, it is said the Rothschilds offered to refund their monetary support with 5 per cent., but their business aid was too valuable. The Elector had not withdrawn it at Anselm's death in 1811. He could not return to his throne until 1813, after the battle of Hainau.

The ex-coin collector remained rough and illiterate, an astonishing Medley of the conventional low pedlar and the statesman; he was mean and exacting to wards his clerks, yet charitable to all creeds alike. He remained true to his faith, and certainly he was capable of the action ascribed to him of summoning his son Nathan — who was reported to be weakening at the knees under London social influence—to a re-union with his brothers over their grandparents' grave, to swear eternal fidelity to the one God of their fathers. He had brought up five sons and as many daughters, and seen his fortune become colossal; a prince had been his partner, now his were kings, and no war could break out on the Continent without the Rothschilds willed it. On his death-bed he warned his heirs,—for he enjoined them to keep the capital whole—to act in unison, and share alike—to beware of Russia and Republicanism, and believed in Prussia and British faith. His widow never left the simple old house, and up to her death the children met there to spend the Jewish New Years.

The five sons settled in five centres of civilization: the power nominally in the hands of the eldest, Anselm, at Frankfort, but really in those of the leading mind, Nathan, at London, though he was the third-born. The others, Solomon, Charles, and James, were located respectively at Vienna, Naples, and Paris.

As chief controller of their four millions, it is with the English Rothschild that we have to do.

Nathan Meyer was born in 1777. His department—in which he was conspicuous for his industry—was the disposal of English goods, constantly introduced to the Continent, notwithstanding embargoes and blockades. It is to be borne in mind that England retained the mastery of the seas, and many of the Napoleonic sealing-up of ports were but paper doors.

One day Nathan offended their chief supplier by being too inquisitive about the origin of certain samples; the great man in his testiness or prudence, refused to deal any further with him. This incident led the way to results of world-wide importance. The numerous family had already found a lack of elbowroom, and the brothers gladly saw their brother—spite of an ignorance of any tongue but his own and the German-Jewish, that jaw-dislocating amalgam—depart from England.

He noticed how much cheaper the goods they had been in the habit of buying became as he approached the factory-filled North country. At Manchester he fixed his headquarters, and soon, by selling the raw material and the dye-stuffs—in both of which branches Jews were peculiarly masters by their hold on the wool-growing countries and the Levantine trade —and by buying prints, he grasped the three profits and could undersell in the home market itself; his family therefore almost monopolized the Frankfort trade. Nathan's frequent trips to London led to his choosing an office there. Then (1800) came the turning-point which

lifted the line out of ordinary circles, and caused them to eclipse the Laras, Gideons and Goldsmids, as wielders of the financial sceptre. His father sent him on the £50,000 of the Hesse-Cassel charge; and from that a connection with the Goverment was founded and maintained.

Not only was "the greatest moneyed country of Europe" in financial exhaustion, but all the powers outside of Albion were floating by the imposition of debts upon prosterity. The house could have no warmer high-class "tout", to put it roughly, than the Hessian Elector; in every court he sounded the eulogy of his financial and commercial councilors, and the Danish Loan was but a precursor of helps as remunerative to Austria, Prussia, Naples, and Germanic princes.

Nathan's most profitable stroke, to attain two profits—always his aim—was to buy an immence quantity of gold from the East India Company, and after selling it to the Government make it plain that he alone could safely and swiftly fill the coffers of Wellington in the Peninsula with it. It actually went through France, whose army it was destined to crush!—the operator always priding himself on this as his "best business."

In 1811-12, when his father died, Nathan was then at his zenith, and reckoned premier of "the three Rothschilds," the monarchs of the family.

In the following year they handled all the funds of the Anti-Bonapartist Coalition. In 1815 Nathan went to Paris, and his father's patron introduced him to the Allied Sovereigns, for whom he had, in one shape or another, raised fifty millions, a sum doubled by 1826, when the Rothschilds were the general Government bankers of Europe.

The Allies' war-tribute amounted to seven hundred millions to be paid in five years, for one-half of which no items were ever presented. Out of this latter; His Serene Highness of Hesse-Cassel and his associates were reimbursed at an unmentioned percentage. At the banquet was recalled Nathan's declaration in 1813, that "If England fell, the Rothschilds would be proud to be buried in her ruins!" This is a widely diverse spirit from the shrewd observation of Gideon when the Jacobites threatened an overturning of the Guelphic Georges and he continued to buy stock: "If the Stuarts come in, they must pay over; if not, the present Government will!" Again, to make the double profit, Nathan and his brethren furnished the advances to pay the war fine, and thus cleared additional margin.

The outlay of the house was always ample for speedy and special information. Nathan had a whole day's exclusive news of Napoleon's escape from Elba. (This being in view of and English naval guard, induced Michaud to see the Rothschilds' hand in it, as a mere device to impose a heavier indemnity on France, by granting the Imperial Eagle a renewed flight!) His couriers often outstripped the Crown messengers all through the great wars. The Jews traditionally elevate Nathan into a hero, who had gone through the battle of Waterloo on a splendid charger by the side of "The Duke."

But, in plain earnest, the ride with the early tidings of the retreat of the Imperialists, with Blucher in revengeful chase, was performed by the Rothschilds' special courier. He paid a long sum for a daring coaster, who crossed the Channel in an awful storm, and galloped from Dover, in time to let his employer operate on Change that afternoon, and the whole day of the 20th June.

The master of finance proceeded to his regular pillar, to stand more morose, sullen, and stupid-looking than ever, not a twitching muscle in that resolute, inscrutable, imperturbable face. One account indeed, says he gave out personally that the English had lost; but this can hardly be well founded, since speculation would have acted rather in the contrary to his sayings, and preferred to go by the movements of his brokers, kinsmen, and agents, known and suspected.

All was gloom whilst he made his play. The fluctuation of funds was the greatest known, that of a hundred per cent. If he ventured all his six millions without reserve—which such sole intelligence fully justified—the profit must have been gigantic. It is not likely that Cohen, who had but reluctantly given his daughter's hand to the secretive capitalist, whose heavy features prefigured no king among Croesuses regretted the match then.

Nathan pensioned the Waterloo messenger—how richly no published facts record, but it is known that he rewarded a clerk for less important information with £5,000.

It is recorded that he turned four millions into his strong chest in one certain day. No marvel that his influence was omnipotent, and he could do as he pleased with the rate of quotations.

His plan was simple as noonday, and any one may practice it as surely who has the golden balls to play with. Being the solitary possessor, undoubtedly, of a secret piece of news, positively calculated to make the English funds rise, he would instruct his acknowledged broker to sell a tolerably large amount of stock. The word would flash about that Newcourt was selling largely, and there would be a fall. At this decline, he would buy the choicest stock to a large figure; the next day he would repeat the same tactics, and, of course, buy in at a still lower rate.

When the news would arrive in the usual course, he would sell at the rising figure, with even a moderate percentage; he had thus made £100,000 a day. The same course in the potato trade would result similarly; and there is no more genius in one than the other. But these were the common operations in warlike times.

Undoing the long-followed and patriotic line of conduct inaugurated by Gresham, that is, finding the money to carry on the Government in the realm, and leaving others to induce foreigners to invest in English undertakings, the Rothschilds coined money as the agents for foreign borrowers in Great Britain. They insisted upon all dividends being paid in sterling in London, and would not help Spain in her embarrassed condition.

But this anti-national policy was the foundation for Peel's famous diatribe, which designated the family a curse to European liberty, for propping up German despots, and aiding false, fickle Austria. He added that the house had no feeling but for money and kindred, a point which only weighs with those who desire sentiment to bias business.

Nathan remained punctilious in details, as in the days at Manchester, which he is thought to have quitted from some miserable wrangle with a fellow Jew. His knowledge of the bill trade was so perfect, though more papers passed through the hands of his dozen clerks than through any twenty houses in London (Sanderson and Overend & Gurney's excepted), that he never hesitated in the fixing of a rate for the most unusual exchange. His mental arithmetic was as wondrous as his memory: for, being too illiterate to make notes, he had

to carry his transcations, gigantic or infinitesimal, in his head until he left the 'Changes for his office, where he dictated to his secretary.

Dr. Margoliouth narrates how another Hebrew, by pretending to fall asleep from drink in his house, obtained hints for a successful speculation from a conversation he heard, but it runs counter to all the character of the shrewd, reserved Rothschild to believe that he would unbosom himself with a possible eavesdropper in the same room.

Mr. Grant tells a tale more circumstantially of how an unnamed Englishman outwitted "Mr. Nathan," who had sent his principal banker and brother-in-law, Abraham Montefiore, to negotiate with Mr. Blank for a loan of one and a half million pounds at 4½ per cent. The security was Consols at 84, transferred to the lender for the advance. By thus putting that amount out of the market, he hoped to raise the price. The special condition was that if that price should go down to 74, Mr. Blank might claim the amount at 70. Immediately he sold out the transferred stock as well as all he had standing in his name for himself and clients, and recommended his friends to sell out likewise. Some ten millions "beared" the market, till no one dared breathe. The 74 point was reached, and Mr. Blank claimed the fulfillment of the bond. Rothschild compromised, at the loss. Thereupon the rival bought in at the low price, advised his friends to imitate him, and tossed the quotations so high and they even touched 86! He and his compeers gained half a million.

Whatever the cause, the house was very quiet in the Irish famine year, and the commercial crisis of 1848 of Revolutionary fame. Though the contractors' bills were handled by them, their failures found them unprepared, and the quantity of Consols the house could not or would not carry, when they had to redeem their obligations, bore the market down to an immense depth. Between Nathan and the Bank there was never any love lost. He had not co-operated with them in the government loans like the Goldsmids, and his disrespect, if we must not say contempt, for the Board of Directors was evinced, when in the panic of '47, which cut him sorely, he answered bluntly: "Put Old John Overend (the bill-broker) in the chair, and he'll manage better than you all!"

Once upon a time the bank refused him the special privilege of accepting his paper in bulk. He dispatched an army of clerks from his own office, and those of his brother-in-law and allies, with Bank of England notes, which they gravely presented one by one. But, however business-like all this was, as the line of Hebrew heads perfectly hedged off the British public, there was much murmuring in the Tellers' Hall, which only ceased when the legion withdrew, their note-books still unemptied and their stock of cash-bags still unfilled. Mr. Baron Rothschild had been expressly desired to step around to the parlor and call off his investing force.

On another occasion, though a Bank loan of a million in bullion had been made to Nathan on the particular proviso that it should be repaid in gold, he presented himself with their own notes. At a remonstrance, he returned with a faint smile: "If you insist, I suppose I can get you gold—at your cashier's!"

In 1834 he had laid down as the way to be happy, to give all one's mind to business, and one business only. He recked little of title, and never used that of baron which Austria accorded the family. His children were less democratic. He car-

ried his love of business into his religion, being so superstitious as to devote a certain proportion of any venture to the altar in event of its success. He believed in luck like an antique Roman, and would have nothing to do with what he accused as unlucky men. In affairs, too, he was without feeling, letting his wife (she had £20,000 a year to herself and should hardly have gambled on 'Change) and his brother-in-law be proclaimed defaulters when the Neapolitan loan of 1823 wrecked the deluded and misinformed.

He would take his walks abroad absolutely penniless, so that his companion would have to pay for any chance purchase. Bianconi would tell a pleasant story of having hailed a cab simultaneously with him, and so forming his acquaintance, which denotes that he was not always careering around in a grand gilded coach, as many provincials believed.

He never studied or read, preferring his office books to any other. He was charitable, as charity goes among millionaires, such almsgiving being laudable in proportion to the state of the exchequer at the time; but, perhaps, the merchants and bankers who suffered by his powerful combinations were never very grateful for any aid which he might proffer them in after-time.

He and Sir Moses Montefiore were connected by marrying one another's sisters, and that name was more often linked with charitable enterprises.

Nathan was wont to say that however great the boldness and caution requisite for piling up a great fortune, ten times more wit was required to defend it. He was pestered with schemes and so harassed by threatening letters that he was at times a monomaniac on the subject.

There is a laughable story of the period when the Carbonari were a tangible terror, of his having suspected two bewhiskered visitors of being the executors of a fatal sentence, and hurled a ledger at the spokesman who was fumbling under his Talma for a letter of introduction.

The circumstances attending the death of Baron Nathan deepen the shadow ever mantling the common fate of mankind. He had gone to Frankfort in the summer of 1836 to witness the wedding of his son Lionel to his cousin, Baron James' daughter. There he was taken ill, and died so speedily that the sad young couple came to England as the escort of his remains.

The news had preceded them at London; for a Brighton hedge-popper had shot a carrier-pigeon bearing the words in French under his wing: "He is dead!" All Lombard street justly applied the advice to the great farmer-general of the present century, and the funds drooped as a flag is lowered to salute the illustrious dead. Setting aside his millions, he had left nothing for posterity to rejoice at.

The Russian and the Turkish loan (£5,000,000 on French and English securities) and the Suez Canal purchase have been the most conspicuous matters effected by the Rothschilds since their ancestor's decease, in England. At the same time, their wealth remains preponderating and will continue so as long as the family motto is adhered to: *Concordia, Integritas, Industria.*

From a foreign source communicated

By Benjamin F. Stevens.

A FAMOUS SEED HOUSE.

An instance of commercial development and growth to proportions unusual is cited in the career of the well-known seed firm, D. M. Ferry & Co., of Detroit, Michigan. Since its establishment half a century ago, the company, following out principles of

strict business integrity and building upon unquestionable merit, has steadily grown until the name of Ferry's Seeds is now a household word with every planter in the land.

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All farmers and gardeners ought to have a copy of the 1905 seed annual of the Ferry Company. It contains information and suggestions that are invaluable. The annual will be mailed free to anyone addressing D. M. Ferry & Co., Detroit, Mich.

THE ENGINE'S SONG.

By Arthur Guiterman.

Through city and forest and field and glen
I rush with the roaring train;
My strength is the strength of a thousand men,
My brain is my master's brain.
I borrow the senses of him within
Who watches the gleaming line,
His pulses I feel through my frame of steel,
His courage and will are mine.
I hear, as I swerve on the upland curve,
The echoing hills rejoice
To answer the knell of my brazen bell,
The laugh of my giant voice.
And, white in the glare of the golden ray
Or red in the furnace-light,
My smoke is a pillar of cloud by day,
A pillar of flame by night.

—*From Four-Track News for February.*

BOOK REVIEWS.

Military Studies. By Frederic Louis Hindekoper. The International Military Series, No. 8. Kansas City, Mo. Hudson-Kimberly Publishing Co., 1904.

These studies in strategy and tactics began in the military department of Howard University, where the author, as a member of the Junior class, selected the first, "Did Grouchy by Disobedience of Orders Cause the Defeat of Napoleon at Waterloo?" as the subject for his essay in the course.

It is pleasant to note that the elective military course at this, one of the greatest universities, has inspired such interest in military matters as to induce the author to continue his work, even after graduation. The second article, entitled "Kolni—Rossbach — Gravelottoe — Leuthen: A Comparative Study of Oblique Attack," was written while the author was an undergraduate at Christ Church, Oxford, and the other articles followed in rapid succession.

All the articles appeared originally either in the *United Service Magazine* or the *Journal of the Military Service Institution,* but they have been carefully revised and in part re-written, so that they are more accurate and contain considerable new matter in their present book form. The maps have also been re-drawn and several new ones have been added.

The author's work has been corrected and revised by the late James Codman Ropes, one of our great authorities on military history.

These studies discuss the principal fundamental principles of strategy and the elements of applied tactics in a clear and explicit way, and should prove of interest and value to

the military student, especially on account of the accuracy and completeness of the details of description, the orders quoted, and the maps used for illustration. There are sixteen maps in all, a very generous supply for the five articles comprised by the work. J. P. W.

Notes for the Guidance of Authors in the Submission of Manuscripts to Publishers. New York. The Macmillan Company, 1905. Price: 25 cents.

This little pamphlet, based on the experience of one of our largest publishing houses, should prove invaluable to all authors, especially such as are entering this arena for the first time.

It contains useful hints on many points, such as the preparation of manuscript, the manner of submitting it to the publisher, proof-reading, composition, spelling, punctuation and style, as well as other details bearing on the subject.

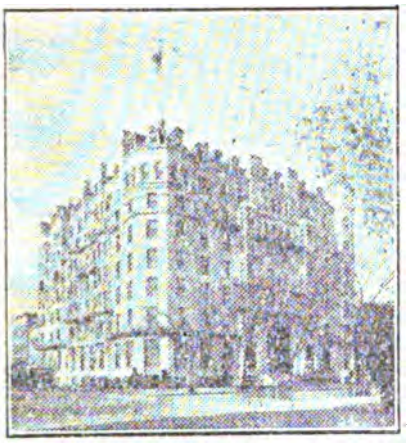
Every word of the sixty-six pages of this guide to authors should become second nature with them, both for their own sakes and for the comfort of the publisher. J. P. W.

Gen. S. Herbert Lancey, the well known military writer, sends us the following correction from his invalid retreat in sunny Florida: "Gen. J. P. Farley's interesting article on 'West Point—Past and Present,' in the February issue, contains an error which I wish to correct, and I do so on the authority of Gen. Robert E. Lee himself, in a private letter to me. Gen. Farley says Lee had distinguished himself as aide-de-camp to Gen. Winfield Scott in the Mexican War. And yet Gen. Lee was not then, nor at any other time or place, an aide-de-camp to Gen. Scott. In the Mexican War he served on Gen. John E. Wool's staff as chief engineer, and as such often came into close relations with Gen. Scott, yet was never a member of his military family. It will be remembered that Harper's Weekly charged Col. Lee with remaining on Gen. Scott's staff in Washington, D. C., as long as possible to get information to carry into the Confederate service. Col. Lee was not then on staff duty, but had recently been promoted from lieutenant-colonel of the Second Cavalry to colonel of the First Cavalry (March 16, 1861,) and was simply in Washington on leave of absence from command of the Department of Texas. At my request, finally, Harper's Weekly withdrew the charge and expressed regret at having been led into the error, as it had caused the editor to do Col. Lee an injustice."

Rear-Admiral N. MAYO DYER.

Rear Admiral N. Mayo Dyer, U. S. Navy, was born in Provincetown, Mass. At an early age he entered the merchant service, in which he was engaged from 1854 to 1859. He then became employed by a mercantile firm in whose service he remained until the breaking out of the Civil War, when he enlisted in the Thirteenth Regiment of Massachusetts Volunteers. His natural preference being for the naval branch of the service, he sought and obtained a transfer, and on May 2, 1862, entered upon his first active duty in the Volunteer branch of the Navy, as Acting Master at the Boston Navy Yard. His next duty was in the West Gulf Squadron, where he early earned distinction for his gallantry and the intelligent discharge of his duties, in recognition of which he was, on May 18, 1863, promoted to the grade of Acting Ensign, and appointed to the command of the Eugenie, a vessel engaged in the duty of blockading the harbor of Mobile and in dispatch service. On January 12, 1864, he was advanced to the grade of Acting Master, "in consideration of gallant and faithful service," as stated by the secretary in the order accompanying his promotion. In July, 1864, he obtained a two months' leave of absence, but upon his arrival at New Orleans, en route for the North, he learned of the probable early attack upon the harbor and forts of Mobile, and immediately relinquished the privileges of his leave and, returning to the squadron off Mobile, at the earliest opportunity, preferred a request to the commanding officer of the fleet to be assigned to active duty. His request was complied with, and he was placed in command of the Metacomet, on July 19, 1864, a vessel which was destined to take a prominent part as the consort of Admiral Farragut's flagship, the Hartford, in the passage of the forts and the capture of the rebel fleet. In this event it was his good fortune to receive in person the surrender of the Confederate vessel Selma. Upon the fall of Fort Morgan he availed himself of his leave, at the expiration of which he was attached to Admiral Farragut's flagship, the Hartford, remaining on duty on that vessel until its return North, in December, 1864, when he was assigned to the command of the Rodolph, with which vessel he co-operated with the forces under General Granzer in their operations against the Mobile from Pascagoula, rendering important service in this connection in Mississippi Sound and Pascagoula River. In the subseuent advance upon Mobile, in the spring of 1865, he had the misfortune on April 1, to lose his vessel by contact with a torpedo in Blalaly River, after he had rendered conspicuous service in the general attack. On the 22d of the same month he received his commission as Acting Lieutenant, and upon the surrender of the rebel fleet under Commodore Farragut, in the Tombigbee River, May 10, 1865, Lieutenant Dyer was selected to command, successively, two of the surrendered vessels, the Black Diamond and the Morgan. In June following he was temporarily in command of the Elk, and in July was given the more important vessel, the Stockdale, with which vessel he was ordered to proceed to Mississippi Sound, to afford protection to the people along the shore and to cultivate the most possible friendly relations with those lately in rebellion. In September, 1865, the Stockdale having been directed to be placed out of commission, Lieutenant Dyer was transferred to the Mahaska, at Apalachicola, but the following month was detached from this vessel and ordered to command the Glasgow at Pensacola. In April, 1866, he was detached from the Glasgow, and ordered to report to the Bureau of Navigation at Washington, where he remained on special duty until May, 1868. Having been mustered out of the Volunteer service, he was commissioned as Lieutenant in the regular navy, on March 12, 1868, and in July was ordered to the Dacotah in the South Pacific squadron, joining at Valparaiso, August 27. On December 18, 1868, he was promoted to the grade of Lieutenant-Commander. The Dacotah having been ordered to San Francisco, upon her arrival there Lieutenant Dyer was ordered to the command of the Cyane, with which vessel he proceeded to Sitka, Alaska, on special duty, running there until March, 1870, when he was ordered to join the Pensacola at San Francisco, but remained on duty on that vessel but a short time, when he was detached to the Ossipee, which proceeded in July on a short cruise to Lower California and the Mexican coast. It was while the Ossipee was proceeding north from the Mexican coast that they encountered a hurrican which left a rough and troubled sea. During the subsistence of the gale, and while the vessel was making sail, a man fell overboard from the maintopsail yard, the halyards having carried him away from the yard while he was engaged in hoisting the top-

sail. In his descent the man struck in the main chains, was knocked senseless, and, falling into the sea, was soon rapidly drifting astern. Lieutenant Dyer was taking an observation on the poop-deck, when he observed the accident. Immediately turning a bowline in the end of a boat fall, he jumped into the sea and succeeded in reaching the man and sustaining him until both were rescued by a boat's crew. For this act of heroism he was publicly thanked by the commander of the fleet, Commodore W. R. Tayler, and in addition was awarded a medal. In September, 1870, he was ordered to the South Pacific Station, from which station he was detached and ordered home, Aug. 22, 1871. He was attached to the Boston Yard from Nov. 7, 1871, to Sept. 1, 1873, and for the two succeeding months was on duty at the Torpedo School, Newport, R. I. On Nov. 24, he was ordered to command the torpedo boat Mayflower at Norfolk, for duty on the North Atlantic Station. From the Mayflower he was transferred to the command of the Pinta. In February, 1876, he was detached from the Pinta and ordered to the New Hampshire as executive officer, the vessel then being fitted out for the permanent flagship at Port Royal, S. C. In December, 1876, he was detached from the New Hampshire and ordered to equipment duty at the Boston, remaining until 1879. He was attached to the receiving ship Wabash 1879-'81, and to the Tennessee, 1881-'83. He was advanced to the grade of Commander in April, 1883, and ordered to duty in connection with the Light House Board, remaining on that duty until 1887, when he was ordered to the command of the Marion on the Asiatic Station, 1887-'90. He was then placed on waiting orders for several years, his next active duty being at the Naval War College, Coasters' Harbor Island, R. I. After serving another brief period as Light House Inspector he was in July, 1897, commissioned as Captain and ordered to the command of the protected cruiser Philadelphia, the flagship of the Pacific Squadron, and stationed at Honolulu. In October, 1897, he was transferred to the command of the protected cruiser Baltimore, and in March, 1898, he was sent to the Asiatic Station with ordnance supplies for Dewey's fleet, the timely arrival of which contributed so materially to the famous victory of Manilla Bay. Commander Dyer participated in the glorious Naval battle, and remained on duty at Manilla until March, 1869, when he was invalided home. He was retired from active service on Feb. 19, 1901.



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THE

UNITED SERVICE

EDITED BY L. R. HAMERSLY, Jr.

APRIL, 1905.

*OPERATIONS ON THE YALU.**

MANY articles have appeared on this ten-day battle, which was fought around the little village of Liao-Yang. But it seems that the writers, following their individual sympathies for one or the other of the adversaries, have either excessively praised the conduct of the Russian general or have, on the contrary, judged him too harshly.

So it is interesting to examine into the tactical conceptions and criticisms which have been expressed in different quarters, about the conduct of the operations of those long and bloody days and especially those during the decisive events of September 1 and 2.

The Russian view. General Kuropatkin puts into practice the experience which he acquired at the siege of Plevna, where he took an active part as the aide-de-camp of Skobeleff. He has sought to derive the advantage of the defensive power of well prepared positions, while at the same time avoiding the danger which attends them when they are held until their envelopment by the enemy.

Thus the following plan: To cause the enemy to attack a defensive front prepared near Liao-Yang, south of the Tai-Tse river and sufficiently strong to be held with few troops against very superior numbers of the enemy; to hold a great part of his forces concentrated in rear to crush the first hostile columns which should attempt to outflank the position, and at the same time to cover the line of retreat of the army on Moukden.

*From *La France Militaire,* October 18, 1904. Translated for the General Staff by Fulton Q. C. Gardner, Second Lieutenant, Artillery Corps.

The Japanese view: Field Marshall Oyama attempts to envelop his adversary. He sets about outflanking on both flanks this long position of Liao-Yang, the front of which extends over more than thirty kilometres. He wished a Sedan.

This was what might be called a faulty plan. If the Japanese general wished to apply the lessons of the Franco-Prussian war, he should have gone back to the beginning of that campaign; to the time when Von Moltke took care to turn the position of Metz by only one flank, in order not to divide his forces before a still intact hostile army.

But the Japs have failed to grasp all the fine points of our tactics. To prove this, certain errors in their translations, as illustrative of this point of view as they are amusing, might be cited, but we refrain lest this criticism should appear unfair to the Japanese officers.

Thus, on the one hand, in the case of the Russians, there is a fixed tactical conception, conforming to the lessons of modern war and to the great principle of economizing in the use of troops (to the advantage, in this case, of the reserves), and, on the other hand, in the case of the Japanese, there is an erroneous conception, since it is opposed to the only principle of military art which is absolutely beyond dispute—that of keeping one's forces concentrated.

We shall observe, in the execution, results contrary to those which a thorough knowledge of tactics would have foreseen, for it is true as Bugeaud has said, that energy in the execution counts more than science in the conception.

Let us outline the execution by analyzing it to some extent, its principle elements.

During the latter part of August the Japanese army of the center and that of the left made furious assaults on the defensive front organized by the enemy. The Russian general is obliged to engage some of his reserves at these points, but never more than absolutely necessary to protect the front. On August 31 General Kuroki takes a part of his army (that on the right) north of the Tai-Tsi, which he crosses several kilometres east of the village of Sykvantoun.

On the first of September General Kuropatkin, having been informed of this movement, sends all of his reserves back north of this same river and concentrates them near, and to the east of, Liao-Yang.

On September 2 Kuroki sends out two strong columns, each of two divisions; one to attack the heights near Sykvantoun and the other to attack "Yantai Hill." He sent out a covering detachment to the East and left the rest of his forces on the south bank of the Tai-Tse, to keep in touch with the Japanese Army of the center.

The same day Kuropatkin had the Sykvantoun heights occupied by an army corps and the Yantai Hill by the Orloff division with one brigade of Cossack cavalry. He gave orders that his reserves, two army corps with one division of cavalry, should come, in the afternoon, to strengthen the front of about eight kilometres, on the flanks of which these heights rest.

Thus four divisions of Kuroki's army, forming only a fraction of the Japanese army, find themselves engaged with the greater part of the Russian forces.

It is a curious fact that in the great wars, the coming into contact of opposing armies furnishes examples of similar surprises. It is still more curious that, in spite of the numbers, these surprises terminate to the advantage of the assailant.

In 1806, at Auerstadt, Davout, with his three divisions, fell upon the midst of the Prussian army; by dint of great energy he forced it to retreat. In 1870, at Rèzonville, Prince Frederick Charles hurled his two army corps upon the entire French army of Metz; his furious attacks decided Bozaine to retreat to that place.

On September 2 it was the same way with the four divisions of Kuroki, which on becoming fully engaged north of the Tai-Tse, compelled the Russians to retreat.

The following are the details of the operations:

The left Japanese column, well in advance of the other, carries by storm the heights east of Sykvantoun, but all its efforts against those on the west were fruitless.

Prince Orloff wished to take this column in flank; he left the Cossacks guarding Yantai Hill and moved his division southwards. But he is himself surprised on the flank by the right Japanese column, which suddenly debouches; he sustains great losses in the "sorgho" fields, in which the crop is about as high as wheat, and is driven back westward. The Japs take possession of Yantai Hill almost without a blow, thus threatening the Russian line of retreat.

Kuropatikin has just begun the offensive movement on Sykvantoun in order to separate Kuroki's army from the river, when he learns that the enemy has occupied Yantai Hill.

The desperate resistance offered by the Japs near Sykvantoun makes him fear that he has met superior numbers; he despairs of taking Yantai Hill, which is naturally very strong, and he orders a retreat.

What motive had impelled Prince Orloff to undertake his unfortunate southward offensive movement?

In the plan of battle his was a principle rôle; to hold the left wing's supporting point in front and thus cover the line of retreat. Why had he deemed it necessary to abandon his position in order to move southwards?

Perhaps he is one of those who place the question of marching to the sound of firing above all military rules. In that case he will have succeeded in seriously refuting that theory.

Just opposite the well known engraving entitled "The Fatal Mistake of Grouchy who would not march to the sound of firing at Waterloo," there might well be placed another entitled "The fatal mistake of Prince Orloff who thought he had to march to the sound of firing at Sykvantoun."

It has also been written that this general, retained at Moukden by Admiral Alexèieff, did not arrive on the battlefield until late, and that he did not have time to become thoroughly conversant with his mission.

In that case the fault falls upon the general in chief who had not sent him sufficiently explicit orders. In the operations as planned, Yantai Hill was to have a part somewhat similar to that of the famous Santon in the battle of Austerlitz; the great importance of which Napoleon did not fail to make thoroughly understood by its defenders.

It now remains for us to seek the explanation of the fact that the advantage remained with the assailant even when opposed by an enemy numerically superior.

The fundamental reason is that only a forward movement produces favorable opportunities and allows them to be taken advantage of.

The disadvantage of the defensive acting on the offensive is that nothing reveals the opportune moment for passing from the defensive to the offensive, and the weakest point of the enemy which should be attacked, is, in the same way, equally hard to discover.

This point of view has greatly changed the conditions of war; Caesar's old saying, "Veni, vidi, vici," is no longer possible. Today we can no longer see the weak point of our adversary on the battlefield, for as the fighting ranges have become so greatly in-

creased, our eyes have not become correspondingly more keen.

General Pierrson quotes in his "Methods of Warfare" the remark of a military writer, that "At less than two kilometres, the two rails of a railroad appear confused with one another." Thus, at a distance which is the mean fighting range (including reserves) the height of a man is a dimension no longer perceptible. But the objection will be raised that it is not a question of discovering a single man on the battle field, but bodies of troops, which even if only as tall as a single man, present sufficient width to render them visible at a distance. It is easy to say in reply that these troops will endeavor to spread out while crossing depressions in th[illegible] [illegible]sily discernable than single men who do not attempt to conceal themselves.

Thus on the battlefield, one side cannot know the exact nature of the forces in its front, even if, as is the case with the Russians in Manchuria, it has a greatly superior cavalry. There lies the true cause of weakness for the offensive defensive. It is unable to take advantage of the good opportunities which may exist, while, as we have said before, the assailant makes them as he goes and is able to profit by them.

We submit this great truth to the thoughts of those who are interested in tactics; we would desire also to submit it to the thoughts of those who are engaged in politics, in order that they may understand the necessity of placing the country in such a condition that it may be able, in case of war, to give to the operations the distinctly offensive character which assures success.

*ACCOUNT OF THE BATTLE OF SHAKE RIVER (MANCHURIA).**

THE accounts of this battle, received from Russian sources, testify to the desperate character of the fight.

M. Nemirovitch Dantchenko, telegraphing from a small railroad station about twenty kilometres below Moukden describes, in a despatch on October 13, the frightful scenes to which he had been a witness:

For more than two days the battle continued incessantly. It was just about midnight on the 11th when the Japanese attempted a sudden attack on the positions in the Russian front.

From the midst of an impenetrable obscurity, they hurled the whole strength of their battalions against the Russian intrenchments. The darkness was pierced with blazes of fire from their guns and the answering volleys of the Russians.

There was no interruption to the attack. For hours and hours the Russians continued doggedly clinging on to the defence of their intrenchments against the Japs. There were but few pauses every man kept his rifle at his shoulder firing at the distant flashes which revealed the presence of the enemy.

Shortly before dawn this terrible, ill omened fusillade ceased, and even the batteries in the distance remained silent. Then we waited for daybreak.

Bands of red and yellow clouds, like tinted streams of blood, hung suspended over the silent valley. To an onlooker, at that instant, the valley might well have appeared deserted; there was not a sign of life in it. From the level of the plain, the hills, sombre and mysterious, rose like silhouettes of rocky tombs in the twilight.

Little by little the fog thickened, concealing the valleys. Drop by drop the water dripped from our beard and from our rifle barrels, which were covered with the heavy night dew.

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*From *Le Matin* (Paris), October 16, 1904. Translated for the General Staff, U. S. A., by Second Lieutenant Fulton Q. C. Gardner, Artillery Corps.

Although tired, wet and chilled to the marrow, we again began this duel between two races. Daylight had hardly revealed the slopes of the so-called "Two Horned Mountain" when our batteries opened upon it with shrapnel. Tufts of white smoke marked the point where each projectile burst. With the naked eye we could distinguish the Japs driven out of their intrenchments by our fire. At first it was a single man who fled, then groups of three or four followed. For an instant we saw the profiles of their dark silhouettes; then they lay down; then disappeared, crawling away in search of shelter among the rocks. Our shots followed them, and the Japs literally fell like wheat before the sickle of the reaper.

On a mountain beside a Buddhist temple, one of our batteries was in action; another battery opened fire from the opposite side, and the Japs fled so precipitately that our cannoneers could follow them only with difficulty.

Presently the resourceful spirit of the Japs manifested itself. They set fire to a large native village on the side of "Two Horned Mountain," having previously determined that the wind, which was blowing from the east, would carry the smoke towards us and form a screen so that our cannoneers could no longer have an unobstructed view.

After 8 o'clock A. M., the attack was vigorously carried on against the whole line. The uproar of the firing continued as on the preceding day, and until noon there were no signs of the Japanese batteries. It seems that they had waited to ascertain our position, and even after they began, the bombardment was not so furious as on the day before. In the distance, the Japs tried to outflank us, from the west, but we had no cause for alarm there as we had plenty of troops to keep them in check. Two turning movements were taking place at once; their movement against us, and our against them.

Reports of great losses during the night begin to arrive. The Tomsk regiment suffered terribly. A mere handful of men is all that is left of the brilliant Tomboff regiment.

The troops fought like heroes the whole night; in the morning the ground they had so bravely defended was covered with the dead. The survivors continue the struggle in the village in front of us.

The shattered remnants of several regiments, after having repulsed the Japanese attacks all night, spread out behind the walls

of the houses so as to be ready to again take up the struggle the next day.

The Japanese attack on "The Mountain of the Temple," which was occupied by the Volinsky regiment, began at 9:15 this morning, but our batteries, from both sides, held the Japs in check and we repulsed this attack, doing so about 10 o'clock. Finally, the Commander in Chief and our entire force, retired from this position, to Shi-khi. Hardly had we left the hill, when the Japs swept it with a deluge of projectiles.

At Shi-khi we met with General Zalinsky, who had come to make his report. An aide-de-camp came up at a gallop with the news that the Japs had driven the Russians westwards from the railroad, but that they had not followed up their advantages but had stopped for their noon-day meal.

Late this evening we surprised the Japs in some awkward positions. The Morshansk regiment paid them back with interest for their morning fusillades.

We have heard nothing from the Russian column which was to execute a turning movement on the left. We are anxiously awaiting news that it has reached its destination.

Our soldiers display the greatest courage and resistance in spite of the terrible obstacles they have encountered.

We have had to drag our guns by hand up almost insuperable mountains. In a narrow defile the Japs rained whole avalanches of rocks down on us. We could not possibly get possession of the defile, but our men, after sustaining most fearful losses, climbed the hills on both sides and captured the heights which command the Japanese positions. Our center and right have rallied; we have kept in touch with our turning column; so that from a strategic point of view we have decided advantage.

Then new reserves, just arrived from European Russia, with their new uniforms and equipments; all fresh, with faces not yet tanned by exposure in the open air, or lined by fatigue and privations, are in most marked contrast to the veterans who fought at Liao-Yang. Nevertheless their energy and determination leave nothing to be desired.

The Japs struck an unexpected blow on our right flank to-day; they succeeded in seizing two of our batteries. One brigade of the enemy attacked a hill occupied by the Novocherkask regiment and partly surrounded our batteries, killing all the cannoneers.

But our infantry came to the rescue and retook the guns after a most desperate struggle.

We expect to hold against the Japs, the positions which we took two days ago.

It is impossible, just now, to give a just estimate of the situation. We shall probably have to wait several days in order to attain the final success in which our men are still confident.

At present we are wet to the skin. Last night there was a terrible downpour of rain which flooded our trenches, and the deluge has begun again to-day. The sky is lit up with flashes of lightening and the thunder is more deafening than even the fire of artillery. It is now ten o'clock in the morning; the tempest only increases in fury; the thunder mingles with the roar of the cannon and the hissing of the projectiles and balls.

It is a terrible sight—and yet a glorious one.

THE PRESENT MILITARY EDUCATIONAL SYSTEM OF THE UNITED STATES.*

"THE peace of the world rests on the point of the sword." This seems a hard saying, and yet it is quite as true to-day as when it was first uttered. Indeed, if we compare the events of the past ten years with those of any former decade, I think it will be readily apparent that we are living to-day in as warlike an age as the world has ever known. Rapid transit and instant communication have brought the nations so close together that they are now dangerously jostling each other in the great race for commercial supremacy. The thirst for trade and colonies and dominion has developed so amazingly in the past twenty years that it seems well-nigh insatiable and fills the world with constant unrest and apprehension. So that, instead of disarmament and confidence and peace, we have had during the past decade a veritable epidemic of international strife. Beginning in 1894, when Japan swept the Chinese fleet from the seas, liberated Korea and reduced the stronghold of Port Arthur, we have had in quick succession the wars between Turkey and Greece, the United States and Spain, the Allies and Boxers in China, England and the Boers in South Africa, and now again Japan in a stupendous struggle with Russia—of which the end is not yet. In addition to all these conflicts, we observe many significant alliances, offensive and defensive, and a notable increase all along the line, both in armament and sea power. In the light of such a record we can hardly hope for the early dawn of that beatific day, of which the poets tell us, when the spider shall weave a curtain over the cannon's mouth and the bullet shall rust on the beach.

Not unmindful of these conditions and recognizing the new relations which the war with Spain has brought us into towards the rest of the world, our War Department has taken up the subject of military preparation and training on a broad and systematic basis never before attempted in this country, and which, if faith-

*An address by Lieut. Col. A. C. Sharpe, U. S. Army, delivered before the Colorado Commandery of the Military Order of the Loyal Legion of the United States, at Denver, December 6, 1904.

fully pursued, gives promise of placing us, in a few years, on a much safer footing. This plan, of course, recognizes that our regular force is small and widely scattered, and that the country must therefore look, as heretofore, to the citizen soldiery for the great mass of its armies. While it is the theory of a republic that every citizen is a soldier upon occasion, it is manifest that only a selected few of our vast population will ever be needed or called to the colors. Therefore we have learned to depend upon volunteers, that is, those who voluntarily offer their services, and we have gradually lost sight of the conscription system which our fathers adopted in 1792. The result has been that many of our good citizens, deeply absorbed in business affairs, have apparently forgotten the old democratic doctrine of conscription, and have come to regard the idea of compulsory military service as an institution of imperialism. So strong is their repugnance to this system and so unwilling are they, in fact, to lend any support or countenance to a military establishment in any form, that I am told instances are not wanting where members of the State or volunteer militia have actually been threatened by their employers with dismissal if they continued to serve the State in this highly honorable capacity. These short-sighted men seem to forget that were it not for the volunteer soldiery, which now comprises our Army and National Guard, we should be compelled to go back to the old conscription system of 1792, for whether we like it or not, soldiers we must have in every State and nation, just as every city must have its policemen; so that these very men or their sons, who now consider themselves too busy or of too much consequence to enter the ranks might possibly be the first to fall under the draft. It is to be hoped that no considerable class will ever arise in this republic so sordid and mean as to be willing to live under the protection of the American flag and yet be unwilling or unable to understand and appreciate the American soldier. If there is any body of citizens above another who deserve the respectful consideration and gratitude of the people of this country, it seems to me it is the State volunteer—the man who is willing to devote his time and energy to the public service without adequate compensation, and often at the sacrifice of his health and life. Instead of threatening such a man with dismissal from employment, we should say, all honor to the American volunteer—regular or militia; all honor to the man who has sentiment enough to love his country and courage and devotion enough to fight, and if need be, die for the maintenance of her laws.

As I have said, the new educational system which has recently been instituted assumes that the bulk of our armies in war will be made up as in the past of volunteers, and the design has therefore been to bring the regular and State troops into more intimate and harmonious relations, and to encourage and assist the officers of the National Guard in their studies of the military art. In the brief war with Spain, we mustered about 250,000 men, and it is assumed that to meet the waste of a protracted campaign we should require at least half a million. Any one who has had experience in military affairs knows that the value and effectiveness of an army depend largely upon the efficiency of its officers. If the officers are ignorant and incapable, it is a case of the blind leading the blind—a military mob furnishing only food for powder and disease. Now, an army of half a million men would require at least 20,000 officers; of these the regular service has less than 4,000, including surgeons, chaplains, supply department officers, signal and other staff corps of every grade. It is estimated that not more than 1,200 graduates of West Point under 45 years of age can be found in the army at one time; hence it becomes of vital importance that some method supplementary to the National Military Academy be devised whereby a sufficient corps of officers shall be constantly under training and ready for service at a moment's warning. This it is hoped may be accomplished in some measure in the following manner: First, by a progressive course of instruction for officers of the regular service; second, by detailing instructors from the regular army for the militia in the several States; third, by throwing open to National Guard officers the various garrison and service schools, and fourth, by assembling selected bodies of both State and Federal troops in annual encampments for training in tactical maneuvers. The scope of this system may be gathered from a brief statement of the course now prescribed for the army which, in its present expanded form, went into effect on the first of last month (Nov. 1, 1904), followed by a hasty glance at some of the maneuvers.

Beginning at the foot of the ladder, we find in every military post a school for enlisted men, in which the common English branches are taught, including for more advanced pupils, algebra and geometry. If the soldier is a non-commissioned officer, he must attend the non-commissioned officers' school, which is devoted to drill regulations, guard duty, the elements of topography, and the Spanish language. As West Point cannot furnish the required number of graduates to fill the vacancies arising each year, a considerable number of young men are appointed, after

rigid examination, from both the ranks and civil life. This examination takes into consideration the candidate's military aptitude and moral character, as well as his physique, and thoroughly sifts his knowledge of history, algebra, geometry, trigonometry, surveying, topography, the Constitution of the United States, and international law.

This is a very exacting test, and as impartial as the law can make it. Out of a recent class of 35 from civil life, only 14 were accepted, and of another class recently ordered up from the ranks, only 23 out of 48 were admitted. Passing this ordeal, the young man receives his commission and is sent to a regiment. Here he enters upon a three years' course covering drill regulations, administration, money and property accountability, guard duty, rifle practice, military law and the procedure of courts-martial, hippology, field service regulations, military hygiene and camp sanitation, cooking the ration, topography, orientation and map reading and minor tactics—the latter branch being very comprehensive and including advance and rear guards, outposts, reconnaissance and scouting, the use of the cavalry screen, the organization and characteristics of the higher tactical unities, logistics, the employment of the three arms singly in attack and defense of positions, and, finally, of the three arms combined. The mere mention of these subjects is sufficient to suggest their importance to those who have any knowledge of the conditions of war. I will not pause to notice them in detail, but it may be of advantage to glance at one or two by way of illustration.

You are aware that the great range, precision and destructive energy of modern artillery now cause deployments at distances which a few years ago would have seemed incredible, and the flat trajectory and high penetration of our present small arms compel an approaching enemy to still further disperse into thin skirmish lines at upwards of half a mile. If not opposed by a well-directed fire, he may succeed, by alternate rushes from cover to cover, in reaching some protected point from which it would be difficult to dislodge him, and from which also, after recovering his breath, he might deliver a successful assault. On the other hand, the attacking line must seek by the accuracy of their fire to compel every head of the defenders to keep below the parapet. Skill with the rifle has therefore become of more vital concern than ever, and from two to three months each year are accordingly devoted to this instruction, including estimating distances, pointing and aiming drills and practice on the range. The targets used for this

training are no longer confined to the old bull's-eye, but include also black silhouettes representing life-size figures of men standing, kneeling and lying down, singly and in groups, as well as men on horseback. For artillery the targets represent batteries with their gunners. Badges and medals of various classes are awarded for excellence in marksmanship, and men who qualify as gunners in the artillery are allowed a slight increase of pay.

This line of instruction is also being zealously pursued in the National Guard, and a further effort is being made by the National Rifle Association and the National Board for the promotion of rifle practice (of which latter the assistant Secretary of War is president), to create a National Marksman's Reserve, by encouraging rifle practice in schools and colleges, and the organization of shooting clubs among our young men generally throughout the land.

Another illustration is afforded by the study of camp sanitation and the economic handling and proper cooking of the soldiers' ration, which are to-day receiving much more attention than before the Spanish War. Statistics tell us that during the war of secession, the Union armies lost about 109,000 men killed and wounded, while the losses from disease reached the appalling total of over 220,000. Of our total strength in that war one in every thirteen was carried off by disease. Half cooked beans and raw bacon are the prolific causes of bowel disorders, while bad water, unsanitary camp-grounds and filthy sinks soon fill the hospitals with typhoid. Nothing is more destructive of the morale and efficiency of an army than a large sick report. The sick soldier is not only withdrawn from the firing line himself, but is a burden to his comrades who have to care for him. And further, in addition to bad cooking, the waste of the ration in unskilled hands, especially among new troops, is also an element of weakness with which we have to contend in our military system. This we may never hope to entirely eradicate, but every effort is being made to minimize it, and during the past season special attention has been given to it in the department in which I am serving by careful training of each man in individual cooking. Reports received from troops serving in this department, including Arizona, New Mexico, Utah and Colorado, indicate that the instruction during the past season has been faithfully carried out, several men in each troop, battery and company having qualified as cooks, while every man from the first sergeant down has learned enough to prepare his own meal with his own meat can and tin cup in case of necessity.

Another prophylactic measure of great value which is fostered in all garrisons is found in calisthenic and athletic exercises. Well equipped gymnasiums are being provided in the large posts for systematic training in jumping, pole vaulting, putting the shot, throwing the hammer, relay races, tug-of-war, etc.; baseball and football are also practiced in all garrisons throughout the open season. A monthly field day is also held in each post throughout the season, and once a year competitors are assembled from all over the Department for a general tournament. The interest in these contests is very gratifying and is still further enhanced by the addition of unique military events, such as wall-scaling, tent-pitching, equipment races, mounted wrestling, rescue races, etc. Besides keeping the soldier in excellent physical condition and fortifying him against disease, these exercises develop his self-reliance, agility and endurance, and qualify him in an eminent degree for the fatigues of campaign, or a possibility of a hand-to-hand encounter in the melee. Indeed, the process of selection by our recruiting officers, supplemented by our field and garrison training, has given us an enlisted personnel superior perhaps in all points to that of any other nation in the world. Out of over 110,000 applicants for enlistment last year, only 27,000 were accepted, and of these over 6,000 were re-enlistments who had already served one or more terms. It is also gratifying to note that over 90 per cent. are native-born Americans, the old reproach that our army was largely made up of aliens having entirely disappeared. So exceptional are the military characteristics of the American soldier to-day as to attract the admiring comment of every foreign observer who has seen him in the field, and in a comparison of all the allied troops who participated in the rescue of the legations at Pekin in 1900 Mr. Henry Savage Landor, in his history of the expedition, describes the American soldier as "having a great deal of dash and courage and much unconscious perception and natural intelligence;" in fact, he says, "he is the ideal type of the soldier of the future."

Returning to the course of instruction, we find the school year divided into two parts, theoretical instruction with recitations, extending from November to April, and practical field work covering the remainder of the year. The only holidays in addition to Saturday and Sunday during the entire 365 being found on Thanksgiving day, about two weeks at Christmas, Washington's birthday, Decoration day, and the 4th of July. Indeed, I believe I can safely say that no other educational system in the world,

not excepting West Point itself with its continuous grind, exacts such constant and unremitting attention to duty, especially when it is remembered that in addition to all this student work the young officer is performing his usual daily round with his company, drilling men, going on guard, sitting on courts, conducting non-commissioned officers' school, etc. So busy are their waking hours that it has become a saying in the army if a youngster nowadays wishes to get married, the girl has to come to him, as he can no longer find time to go to her. An illustration of this point was received only a short time ago at my own headquarters, the commanding officer of a large post writing: "I have the honor to acknowledge receipt of your special order detailing a general court-martial at this post, and to request the decision of the Department Commander as to whether this court is to take precedence of schools and other duties. Under the existing schedule, every daylight hour is occupied, and the evenings are needed for study. There appears, therefore, to be no remaining hour available for the administration of justice except Sunday."

Upon completion of each subject, the student officer is brought before a board of seniors for examination, and if he passes, is awarded a certificate of proficiency. If he fails, he is turned back to the next class and travels over the course again. The first three years of garrison school successfully ended, he must now serve one more year as instructor and in other capacities, when he is eligible for detail as a student officer at the Infantry and Cavalry School at Fort Leavenworth, or the Cavalry and Artillery School at Fort Riley, or, if in the Artillery, he may go to the Artillery School at Fortress Monroe or the School of Submarine Defense at Fort Totten, N. Y. The courses at these schools are still more technical and advanced, extending over one year, and designed to prepare the officer for higher command. At Fort Leavenworth, special attention is given to military map making and reading, hasty intrenchments, and the use of cover, field engineering, the preparation of orders and the solution of tractical problems, involving the interdependence and co-operation of the three arms, as well as the use of railways and lines of supply, and some consideration of grand tactics. From among the most distinguished graduates of these various schools, a limited number—about fifteen or twenty—are selected for a still further course of one year in the General Service and Staff College, where theatres of war are studied and campaigns are worked out involving large bodies of troops, bases, lines of operation and other problems in

strategy. Finally, a selected number not above the rank of major are chosen each year to attend a course of lectures at the War College in Washington City, and here they are led onward and upward into the great field of strategy—the splendid science of generals—a science which so few have mastered, but which almost any patriotic American without an hour's preparation or study is ready to plunge into at the outbreak of war. It will be seen that but few officers can hope to advance beyond the School of Application, the great majority returning to their regiments, where they serve with troops and as instructors to new arrivals, or are available for detail on recruiting service or staff duty, or as instructors for cadets at West Point, or for student officers at the various service schools, or to train the students at the eighty colleges authorized by law throughout the land. These college details deserve special mention as a most valuable feature of our educational system, and are doing excellent work. The last annual report shows that the work done at many of these civil institutions is being carried forward very efficiently and has elicited high praise from the inspecting officers. Every school is inspected once a year by an army officer, and the recently published annual report of the inspector general shows that there are now over 14,000 young men and boys under this course of training. In case of war these young men would all be more or less versed in the elementary principles, and would doubtless be found of great assistance in the speedy organization and mobilization of volunteer forces. Those of you who participated in the great war of 1861 well remember the sore need of experienced officers in those anxious days. Even a man who knew but a smattering of the merest rudiments was at a premium. General McClellan, writing under date of August 15, 1861, says: "The great trouble is the want of officers of regiments; we have good material, but no officers," and Colonel Suydam, chief of staff to General Keyes, speaking of his own helpless condition, says: "I had entered the army from my lawyer's desk utterly ignorant of anything pertaining to the service, and after three months' diligent application had tolerably well familiarized myself with the duties of a lieutenant of cavalry." Three months! Think of it! Three precious months, every day of which was worth millions to the government, spent in elementary instruction. Time enough lost in getting ready to have made a vigorous and decisive campaign; more time, indeed, than was needed from Saarbrucken to Sedan; longer than Japan's war with China, or that of Greece and Turkey,

or of the United States with Spain. Surely if modern wars teach any lesson at all, they must deeply impress us with the fact that the mere construction of fortresses and engines of war, and the organization of vast hosts of men with well-filled magazines, will be of little avail if we do not understand how to use them. If every shot from an eight or ten or twelve-inch gun in one of our seacoast forts costs from $300 to $600, it is important, even from an economic point of view, that they shall not be thrown harmlessly into the water. The gunner must be trained to sufficient skill to make at least a reasonable percentage of hits. Just so it is with armies in the field; war as it is waged to-day, is enormously expensive, both in life and treasure. In untrained hands, however brave and patriotic, it can only result in humiliation and ruin. Our own history furnishes abundant proof of this. To my mind there is no story in all the annals of war more pitiful and pathetic than the history of the Army of the Potomac during the first two years of its existence. Composed of the very flower of the nation's young manhood—the finest material for soldiers, as I believe, which the world has ever seen, and yet, in the hands of untrained leaders, marched to and fro over the hills of Virginia and sacrificed to disease and the havoc of battle through ignorant administration and unskilled dispositions. The wonder has always been that those heroic souls, under such uncertain leadership, could still keep up heart and press on through continued defeat and disaster with such lion-like courage and unwavering devotion and tenacity. They were indeed an army of whom their untried leaders were not worthy.

If then, from the militia we can secure a well-organized, well-equipped and instructed first line to supplement our regular force, and from the college boys a fair proportion of company and battalion officers for our additional volunteers, we may hope that our admirable service schools, and annual field instruction will produce a select and well qualified corps d'elite capable of exercising high command. The finishing school for these higher commanders is found in our autumn maneuvers, which may be considered the ultimate advance or culmination of our whole military educational system. These maneuvers, constituting in reality a great school of application, have been the dream of our military students for the past twenty years. Various plans have been suggested from time to time, but owing to the limitations imposed by our Federal Constitution, it has been found difficult to secure the necessary co-operation of State and national troops in suffi-

cient numbers to carry the scheme to success. Finally, after years of discussion and deliberation, a committee on militia was created in the House of Representatives, with the Hon. Charles Dick of Ohio as chairman. With this excellent beginning the work went rapidly forward, and the following year General Dick, supported by a strong committee of the National Guard Association, which was then sitting in general convention in Washington, formulated the now famous Dick bill. After considerable debate, especially in the Senate, where it encountered some delay, the bill was finally accepted with a few compromises, passed through both houses, and became a law by presidental approval on January 21, 1903. That was indeed a red letter day for the National Guard.

It will be of interest to you to know, and it gives me great pleasure to state it here, that one of the most earnest, efficient and hard-working members of that National Guard Committee was the delegate from Colorado—General John Chase.

Speaking of this bill a short time after its passage, Secretary Root is quoted as saying that in his judgment its far-reaching importance would become more and more apparent as the years go by, and it is a noticeable fact that no measure of defence which we have ever adopted, if we except perhaps the rapid expansion of our navy, has aroused such lively interest among our brethren in foreign lands. To be the father of such a law is an honor of which any statesman might well feel proud, and I am persuaded that whatever further distinction may await its patriotic and far-seeing author, the Dick law alone will suffice to make his name and fame secure, and will entitle him to the gratitude of his countrymen for generations to come.

As already indicated, the Dick law generously provides for the education of National Guard officers in the garrison and service schools, for inspection and instruction of the National Guard by Regular officers, and for stated drills and encampments as well as for the annual maneuvers. In fact it is the most comprehensive step in military legislation which this nation has taken since the adoption of the Federal Constitution. I will not stop to enumerate its various provisions, all of which are directed towards the development of the militia into a great auxiliary force, uniformed, armed, equipped and drilled, and ready to re-enforce the regular army as a first line, pending the organization and training of additional volunteers. While all of its provisions are valuable, if faithfully carried out, the one which most appeals to the professional soldier is that which brings the regulars and militia into

co-operation in the autumn maneuvers. The assembly of such a command, several thousand strong, and composed in proper proportion of all departments and arms, is in itself an object lesson of great value. The practical solution of tactical problems with such large bodies actually in the field, rounds out the great educational course of the officer, and gives him an experience in higher command which can be gained in no other way short of actual war.

Referring to this law, Secretary Root, in submitting his last report before retiring from the war office, said: "This statute plainly opens a wide field of new duty for the officers of the Regular Army. They can no longer fill the measure of their obligation to the country by perfecting themselves and the forces under their command in the performance of their own military duties. They are charged with the further duty of applying their military skill and experience to the preparation of the militia and volunteer force which will be associated with them in the next war, for effective service. A new responsibility also rests upon the officers of the National Guard to render to the nation full and unstinted return for the enlarged means and opportunities which the liberality of Congress has afforded to them."

Secretary Taft, in his recently published annual report, adds his endorsement in the following words:

"These maneuvers cannot fail to be of great value in the practical training of our military forces, both regular and militia, for they accustom officers of the higher grades to the command of troops under campaign conditions; they familiarize officers of all grades with the handling of their organization in unexpected and varied situations, thus cultivating their resourcefulness and military judgment; they teach the men the duties of scouting, reconnaissance, marching, and battle formations, and give them a knowledge of life in camp and bivouac; they give officers of the staff departments practical experience in the transportation and supply of troops; and they enable officers and men to acquire a knowledge of camp sanitation that may mean the saving of lives in future. To the militia these encampments furnish, moreover, not only the means of observing the methods of the regular service, but of comparing their progress with that of the militia of other States. The prime object of the maneuvers is to disseminate practical military knowledge among those upon whom we must draw for officers of volunteers in time of war."

In his recent annual message to Congress, President Roosevelt also considers this interesting subject and says:

"It is very important that the officers of the army should be accustomed to handle their men in masses, as it is also important that the National Guard of the several States should be accustomed to actual field maneuvering, especially in connection with the Regulars."

The expectations thus voiced by these eminent statesmen seem already to have received ample justification in the operations undertaken during the past two years. In the combined maneuvers of the army and navy along the New England coast last year, the entire National Guard of Maine, and large contingents from Massachusetts, Connecticut and New York participated with great success. The chief of artillery, commenting on these exercises in his annual report, said: "The recent maneuvers in the artillery district of Portland, Maine, afforded means for a practical determination of the employment which may effectively be made of the organized militia, both as an artillery reserve and as infantry for land defense. * * * Excellent and enthusiastic work was done by all." And he further remarks: "As a school of instruction for field and company officers they have been of incalculable benefit."

So with the inland camps, two of which were held last year, the first one at West Point, Kentucky, and the second at Fort Riley, Kansas, and one this year on a much more ambitious scale on the historic field of Bull Run. In each of the camps last year we had about the same strength—nearly 10,000 men. All arms were fully represented, the command at Fort Riley including nine batteries of artillery, a brigade of cavalry and four brigades of infantry. There was also a battalion of engineers completely equipped with a bridge train, which was utilized for crossing the Kansas river. The course of instruction was very complete, the program of exercises including problems in nearly every phase of tactical action that could arise in war. One of the most notable features of this training was found in the constant daily exercise in map reading. No sooner was a problem announced than every umpire and every man who was liable to exercise command was pouring over his map, studying the contours and roads and other topographical movements of the enemy. It was especially interesting in this connection, to note the quick perception of the trained artillery officers in choosing positions for their batteries. Frequent occasion was also presented for the use of cover, and

the construction of hasty entrenchments, while the cavalry was daily engaged in illustrating its skill in scouting and patrols and in screening the movements of the main body. To give all officers opportunity for higher command, it was arranged from day to day that certain of the ranking officers should be excused from participation, thus devolving the command upon their juniors, and in this manner, captains were at times commanding battalions, and majors regiments and even brigades. As an illustration of one of the most interesting problems executed under this plan, I may mention the passage of a defile at the camp in Kentucky. This defile was a deep gorge about a mile and a half long, and the rear guard, which was to retire through it, was composed of a regiment of infantry, four troops of cavalry, two guns, and a small wagon train, all under command of a major of infantry. The pursuing party, located four miles south at the village of Stithton, and also under command of an infantry major, consisted of eleven troops of cavalry, four guns, and a proper proportion of infantry. It is probable that neither of these commanders had ever drawn sword over such a large body of men, and the experience which he there acquired in personally directing the three armies in action was one which could be afforded in no other way except in actual campaign. Another very instructive problem was the convoy of a wagon train at Fort Riley, under command of a lieutenant-colonel. This train numbered 113 wagons, extending nearly two miles along a single road which was intersected with several streams spanned by stone bridges. In this problem the commander again had opportunity to display his utmost ingenuity in disposing his troops for the protection of the train, while his adversary had abundant temptation to blow up bridges and otherwise retard his progress. The convoy consisted of two regiments of infantry, about half a regiment of cavalry, and four or six guns. The enemy was strong in cavalry, and also had a most energetic horse battery. The problem was well worked out, the train being greatly harassed and delayed, and losing twenty-two guns under the fire of the hostile artillery. In the larger units, also, ample opportunity was given for the exhibition of the best tactical skill. In one of these problems, General Bliss, with something over 4,000 men, of all arms, was covering a retreat and opposing an advance guard under General Kobbe, with about the same strength; while at both camps the entire division, nearly 10,000 strong, was deployed into line of battle—

at Camp Young in Kentucky under General Kobbe, and at Camp Sanger in Kansas under General Grant. These deployments required several hours' time and illustrated in a most impressive way the importance of having the regiments and smaller units drilled to prompt execution of their respective duties, especially when advancing to meet an active foe. The maneuvers of the present year, which were held as stated on the Bull Run field, were participated in by about 25,000 troops, divided into two hostile camps twelve miles apart. One division under General Franklin Bell was located at Thoroughfare, and the other under General Grant about two miles west of Manassas, while corps headquarters were mid-way between the two at Gainesville. Each division was composed of four brigades of four regiments each, with a complement of engineers, cavalry, artillery, ambulance companies, medical and signal corps and train. About 5,000 regulars of all arms were distributed in the two camps, and so assigned as to give a certain proportion to each brigade, thus bringing them into intimate association with the National Guard. Every State along the Atlantic and Gulf border, from Maine to Texas, including West Virginia and Tennessee, and with the exception of New Hampshire, Rhode Island, Pennsylvania and Mississippi, sent strong quotas of their best troops—several States contributing two regiments each, while Massachusetts, Connecticut and Georgia each sent three regiments, and New York four, besides considerable cavalry and artillery. The exercises between these armies were on a much more extended scale than those of the preceding year in Kentucky and Kansas, each problem covering two days and the intervening night, and involving a great deal of strenuous work, scouting, marching and fighting over the entire theatre of operations. The maneuvers for position were well worked out and the night march of Bell's division on the last day, striking, turning and crushing the enemy's right flank near Sudley Springs, was indeed a brilliant achievement which would have made the dashing commander famous had it occurred in actual war.

I will not encroach further upon your patience with the details of these maneuvers, as I have already said sufficient to indicate their character in the practical application of tactical principles which they are designed to illustrate. The militia troops appeared to be deeply interested in all the exercises, and while the cream of the instruction was undoubtedly enjoyed by the umpires and those who were fortunate enough to exercise some

command, there is no doubt that all who participated derived more or less benefit, and that this will steadily increase as the system is developed from year to year.

As to the relative advantages of large and small camps, for maneuvers, my observation inclines me to believe that as good results can be obtained from the latter as the former, while the increased expense involved in transporting large bodies greater distances, as well as the additional cost of ground rent and damages would seem to render the larger camps less desirable. Where a single State has a sufficient force to make up two or more brigades, it would seem feasible to have a central State encampment, with the addition of a complement of regulars, at very reasonable expense. This plan, which was pursued last August by the Ohio National Guard at Athens, was an eminent success, the State troops of all arms, numbering about 5,500, under command of Major General Dick, and the War Department sending two battalions of regular infantry, two troops of cavalry and two batteries of artillery to co-operate with them. This camp lasted eight days, covering three excellent problems which were well worked out. The expense was probably not greater than in smaller (local or regimental) camps, while the instruction was most beneficial and gratifying.

Military training and education are sometimes deprecated by good people through a fear of cultivating too strong a martial spirit which, in turn, may betray us into aggression. They say that military men, having studied the best methods of waging war, will naturally be disposed to put their lessons into practice, and therefore be inclined to provoke war. Wendell Phillips, commenting on military training in colleges, declared it to be "a harmful and un-Christian innovation." But I want to assure you from an observation of over thirty-one years in the profession of arms, supported by some reading of history, that this, in my judgment, is a very mistaken notion. The man, indeed, who really knows most about war is the least anxious to see it come. Every one remembers with what reluctance President McKinley consented to the war with Spain. He had seen four years of carnage and desolation and knew what war was. And I think if we will but read history attentively we shall learn that wars are not caused by military training and preparation (for all of our own wars have found us lamentably unprepared), but, as a speaker at the recent World's Peace Conference in Boston confessed, they are produced

"by the noted bellicosity of human nature." We cannot evade or disguise this fact; as the speaker declared, "We are once for all adapted to the military status. A millenium of peace would not breed the fighting disposition out of our bone and marrow." Statesmen, philosophers and historians are agreed that without this disposition, this resolute purpose to maintain at any sacrifice what we conceive to be the right, the spirit of liberty and love of country would languish and disappear. Sir William Napier, the great historian of the Peninsular war, tells us at the conclusion of his majestic work, that "War is the condition of this world; from man to the smallest insect, all are at strife." And so long as there remains a wrong to be righted, so long as there is heard a voice coming across the waters, like the agonizing wail of Cuba, there will be found strong men and brave hearts ready to fly to the rescue. In his great oration at the dedication of the Garfield Monument in Washington some years ago, Ex-Speaker J. Warren Keifer declared that painting, music, sculpture, the fine arts and letters may satisfy restless genius, but "a nation without battlefields would be devoid of patriotism." The high ideals which make life worth living would fall into decadence and vanish away. And so I repeat that disagreements and discord and conflicts among men and nations arise, not because the soldier is daily whetting his blade, but because of the cupidity, the lust of power, the affectations, the sympathies, in a word, the emotions, noble or ignoble, of the human heart. It is the impetuous, patriotic, but ignorant civilian who knows nothing about the great problems of orgaization, and logistics and strategy, or even of the elements of administration and tactical combinations—the man who has never studied the Draconian laws of war and who little dreams of the havoc and desolation which stern necessity may compel him to make—the man who counts not the mountain of debt and the long pension roll which will come to vex him and his posterity for a hundred years—he is the man who is anxious to rush to the front all unprepared, with the cry, "On to Richmond," "On to Berlin," and to pour out his blood in vindication of a glorious idea. The doctrines enunciated in the so-called will of Peter the Great, but which as a matter of fact Peter probably never saw, are as abhorrent to the cultivated soldier as they are to the gentlest humanitarian on the earth. The idea of keeping the country in a perpetual state of war, of stirring up strife among neighbors in order to profit by their misfortunes, or of fomenting and encouraging anarchy among weaker states with a view to

their subjugation, is a dream of devils which could never find lodgment in the mind of an American soldier—regular or volunteer—for a single instant. It is not the soldier, it is the people, it is the minister of state, the parliamen, the congress, who say, "Let us have war." It is the soldier, obedient to their behests, who carves out victory with his sword, and then, modestly sheathing his blade, says, "Let us have peace."

The purpose of our army and National Guard, if I understand them aright, and the aim of all their officers, from highest to lowest, is simply to attain and maintain the maximum of readiness and efficiency, so that, if the Congress, in whom alone resides the power to declare war, shall in its wisdom find it necessary to maintain the integrity of our flag and our international doctrines, by a resort to arms, we shall be prepared to meet on equal, if not superior, terms the soldiers of any other power on earth.

In conclusion, I will call your attention to one other feature of our national military education which, in my judgment, should be adopted in our public schools, and, indeed, could well be imitated by every man, woman and child throughout the land. If you will visit any garrison of the United States, whether at home or in far away islands of the sea, or any ship of our navy in port or afloat, you will observe the most scrupulous attention paid to rendering honors to the flag. Not only are the colors respectfully saluted, but whenever the Star Spangled Banner is played by a band, every officer and man within sound of the music, no matter where he may be, immediately rises and stands at attention, silent and uncovered, until the last note dies away. It is indeed a most beautiful tribute of reverence and love, and one of the most impressive spectacles in military life. I have often noticed in the public theatres that the playing of the tune of "Dixie" is greeted by a portion of the audience with generous applause, manifesting a tender sentiment of devotion to the section of their birth. This local attachment is natural and not to be condemned, for love of home is the beginning and foundation of all patriotism. As the old proverb tells us, "Where there is no vision the people perish. But it has sometimes occurred to me when witnessing these enthusiastic demonstrations, how much more appropriate and impressive it would be, if, when the glorious national air is played, the entire audience, recognizing no north, no south, no east, no west but only one grand and mighty nation should rise to their feet and stand in silent homage. Is there not here an opportunity for the members of Patriotic Societies and the National Guard to

lead the way in this example? Gentlemen, this is an element of our educational system which we can not afford to neglect, for patriotism, as our own history has sadly demonstrated, is not an abiding emotion which all share in equal degree. We can not forget the melancholy experiences of '63 and '64 when it seemed to have all but vanished from our people and we were compelled to offer great bounties in gold and even resort to the draft to compel men to come to the support of their country's drooping colors. We should therefore let no opportunity pass to implant in the hearts of our people, and especially in the plastic minds of the young, an unquenchable love of country and of all that is noblest and best in our national ideals. To my mind there is no better way to accomplish this plan by teaching the children from the kindergarten up. Let them learn that when a piece of bunting has been shaped and colored into the form and substance of the American flag, it at once becomes something sacred, hallowed by the dearest and tenderest memories, not only as the symbol of our national life and the emblem of our personal liberty, but as the ensign of hope to all mankind, and the most precious heritage ever bequeathed to the sons of men. Let them learn this lesson so early, so often and so well, that the banner shall seem to them the most graceful and beautiful object ever kissed by the winds of heaven, whose broad stripes and bright stars, gleaming athwart the sky, whether in peace or in war, on land or on sea, at home or abroad, shall stir the deepest emotions of the dullest soul and ring from every true American heart the adoring cry:

"Flag of the free heart's only home,
By angel hands to valor given;
Thy stars have lit the welkin dome,
And all thy hues were born in heaven."

OLD BOSTON.

THE story of Old Boston can never be worn threadbare, although it has been told so often. It presents no new facts; the lanes and alleys of this ancient town are almost as well known as the walks around the State House or the old City Hall. One can almost see the quaint old houses at the North End, with their pretty gardens at the side, wherein our ancestors took so much pride and comfort; every foot of the old streets and noble Common has been tramped over and over where once were the footprints of the Puritans. No, there is nothing new in this subject; everything is old and moss-covered. But what is there that appeals with greater sympathy to the heart of the Bostonian of to-day than the places where our fathers lived, died and were buried? What better, purer and nobler thoughts can possibly pass through our minds than those which tell of the trials of that band of Puritans who asked only "for freedom to worship God?"

No one can doubt that our Puritan forefathers had much to contend with after leaving their native land and everything they held dear. After suffering the most dreadful privations upon the ocean, they planted themselves on our wild and rugged shores, to seek that liberty of conscience they could not enjoy at home.

The ways in which they made laws and punished offenders are quite interesting, even at this late day, when more than two centuries and a half have rolled over the heads of a rather singular people and their descendants. The Puritans were not all godly men in those early days, as is instanced by the recorded fact that in 1632, only two years after the settlement of Boston, the most notorious thief in Massachusetts was sentenced to lose all his estate, out of which was to be paid a double amount for whatever he had stolen. He was then to be whipped, then bound out for three years, and after that "to be dealt with as the court may direct." This may be called pretty hard sledding even for a criminal. Later on it was ordered that every inhabitant having any of John Reeve's and Ludowick Muggleton's books who would not bring or send them to the nearest magistrate should forfeit

ten pounds, and when found the books were to be burned in the market-place in Boston on the next lecture day (Thursday) by the common executioner. The Muggletonians, as they were called after the aforesaid Ludowick, who was a "tailor by trade," became a very notorious sect in England about 1650, the members of which believed that God the Father, leaving the government of heaven to Elias, came down and suffered death in a human form, and Reeves and Muggleton asserted that they were the two last witnesses of God who should appear at the end of the world, according to the third verse of the eleventh chapter of Revelation: "And I will give power unto my two witnesses, and they shall prophesy a thousand two hundred and threescore days, clothed in sackcloth." These witnesses were supposed to be alluded to by Ezekial the prophet in his thirty-seventh chapter, to which my Bible readers are respectfully but earnestly referred.

The Puritans could not and would not stand such a nonsensical belief, and they "went for" the Muggletonians tooth and nail and drove them no one knows where; and they seemed to have disappeared from Boston, although it is supposed that the sect existed until within a comparatively few years. There may be some of them roaming about now for aught one can tell.

In 1658 our forefathers began to have trouble with the Quakers, and three of that sect, Copeland, Holden and Rouse, who were probably as good, law-abiding persons as their enemies, were deprived of their right ears by the hangman of Boston, and two years later four suffered death on account of their disbelief in the Puritanical cant of the day. The Quakers, or Society of Friends, have been a fertile source of persecution in England, and especially, too, in this good old town of Boston. This sect was founded about 1646, by George Fox, who discarded all religious ordinances, and believed in a purity of life as perfect as could be, and using thee and thou for you, and wearing garbs of great plainness. The name "Quakers" was given to them in 1650 by a justice of Derby, England, because Fox, their founder, admonished him and those present "to quake at the word of the Lord." It is said by the historian that the first Friends who arrived in Boston were women, and that in addition to being cruelly scourged, their ears were cut off, for what would these poor women want of ears? The old Puritans simply followed in this respect the dreadful punishment inflicted upon Friends by Englishmen. It was stated in Parliament in 1659 that two thousand Quakers had

endured untold punishments in Newgate; and in the year 1664 fifty-five out of one hundred were sentenced for obstructing religion, probably, and shipped over to this country. One account says that the masters of vessels refused for some months to carry them, which refusal led to an embargo laid by government upon all West India ships. It is probable that these ships used to touch here for provisions and cargoes. The Friends were neither allowed to walk on board, nor would the sailors hoist them on, and so matters remained until, in 1665, a vessel finally sailed with the prisoners, which vessel was soon after captured by the Dutch, who liberated twenty-eight of the original fifty-five, the rest having died of the plague.

Let us return to Mary Fisher and Ann Austin, who were the first of the Quaker faith to arrive in Boston, on June 5, 1656, and who were doubtless the women alluded to by the historian. As soon as the town authorities heard of their being on board an incoming vessel in the harbor, they went down and made prisoners of these two poor, quiet women, and afterward put them in jail in this town, and the books they brought with them, after having been stolen by the austere men in charge, were publicly burned. There was in the town at that time one, Nicholas Upshall, an old man, but a pious and sincere Christian, who applied to the jailer for leave to furnish the poor prisoners with food, and it is recorded that he even went so far as to pay five shillings per week for that privilege, probably to the jailer; but his kindness of heart cost him a fine of twenty pounds, and a sentence of banishment was pased upon him. This truly good man, it is said, was possessed of a large estate on Richmond street, besides being a church member and a freeman. So, to avoid unjust and cruel punishment, he fled to Plymouth, where he remained till 1662, in which year his sentence seems to have been annulled. He returned at once to Boston, and prepared a room in his house for the use of the Friends. But our sanctimonious Puritans still made laws against them should they appear within this jurisdiction—such laws as fines, public whippings and imprisonment, which were soon followed by another law decreeing a forfeit of one ear for a first offense, and another ear for a second.

This good old man, Nicholas Upshall, came over in 1630, and was therefore one of the earliest of the colonists; in 1637 he had the proud distinction of being a member of the Artillery Company. He owned from Hanover street to the water on the northeast side of Richmond street, and at his death, at a very advanced

age, in 1666, left his estate to his two daughters. If any one ever deserved to have his humanity recognized by a monument of brass, were his last resting-place known, it is the aged Christian Nicholas Upshall; and on it should be placed the words of our Saviour in the parable according to Matthew xxv.: "And the King shall answer and say unto them, verily, I say unto you, Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me."

But the persecutors of the Quakers still went on persecuting like madmen. An old writer says: "Having left their own homes on account of the severe persecutions by the English Church, it would rationally be supposed that similar movements among any conscientious class of God's worshippers would be kindly dealt with; but instead of a holy and kind feeling toward those similarly situated, they ordered some of the Quakers to be sold for slaves for the payment of the fines inflicted upon them for being the followers of George Fox." This severity had a contrary effect to what our old Puritans imagined, for the Friends increased their number, some of the Puritan families going over to them and embracing their religious creed. At last the conduct of our dear old forefathers became so unbearable and unwarranted by the Crown that the Friends complained to the king, who ordered that no further execution of Quakers should ever after take place.

The first meeting of Friends in Boston was on May 4, 1664, at the house of a Mr. Wanton; but the authorities hearing of it issued a warrant to seize the preacher and report the names of the congregation to the governor, but those in charge did not seem to be successful on that occasion. On the 9th of August, 1675, twelve men and two women were apprehended at their place of worship, the location of which is apparently unknown, twelve of whom were publicly whipped; and at the next meeting fifteen were caught red-handed—if such a term can be applied to a religious belief—and publicly whipped, which number included three women. Just think of it! Three of the most precious of God's creatures stripped to the public gaze and lashed because they could not believe in the mistaken notions of the Puritans! These cruel punishments toward a peaceful people drove some of them almost, if not quite, to frenzy. One, Alexander Coleman, went into one of the old Puritan meeting-houses in a bloody coat; also Thomas Newhouse followed with a couple of large glass bottles, and, smashing them together, cried out: "Thus will the Lord break you in pieces!" to the utter consternation of the as-

sembled worshipers. If anything could have created a scare, surely there was ample material in a bloody coat and two old bottles.

Under the new charter granted in the days of Sir Edmund Andros, the Episcopalians, Quakers and Baptists seemed to have been placed on rather better ground than their nighbors, the old austere Puritans. In 1692 these three sects were, under certain circumstances, exempted from taxation, but wherefore does not appear in the record before me. In 1694 the Quakers owned a lot of land on Brattle street and thereon built a brick house of worship. There they continued to meet until the Spirit moved them to say something, until 1707, when it was thought best to sell the meeting-house and build a new one of wood and of small dimensions, which they were not permitted to do; so they built one of brick on Congress street, where the Transcript and Gazette offices stood for so many years.

This building was destroyed in the great fire of 1760. The Friends were never very numerous in this old town, more shame to that diabolical Puritanic spirit which caused them to go forth from persecutions to which some of those of the early Christian martyrs were but as child's play; for certainly being thrown to a lion and devoured was as nothing to losing one's ears and being whipped before the public gaze of the idle and dissolute.

In 1774 there were said to be but eleven of the Society of Friends in this town, and probably at this day not many remain. In 1827 their property in Congress street was sold, and the bodies of the silent worshippers, which had remained for years in their cemetery, were removed to Lynn. Soon after a Friends' meeting-house was built in Milton Place, off Federal street, of which not a relic now remains, but our city directory of 1891 gives us as a place of meeting of the Society of Friends a room in Wesleyan Hall on Bromfield street. Enough of the devil of Puritanism and all his works.

William Blaxton, or, as it is more commonly written, Blackstone, was the first Englishman known to have set foot and resided on the peninsula of Boston, and, from the latter circumstance only, claimed most of the land. He pitched his tent, or whatever he lived in, on the western side, or what is now known as the West End, of the town, which then bore the name of Shawmut. He belonged originally to the Charlestown settlement, from which he seems to have seceded, and finding near his new location excellent springs of water, with which to this day Beacon Hill

abounds, he communicated the fact to Governor Winthrop, and urged him to remove hither, for the people of Charlestown were suffering terribly from the lack of water, one of nature's grandest offerings. So Winthrop came over and Boston began to be settled. To a retired Episcopal clergyman this city to-day, in a certain way, owes its origin. Mr. Blackstone was admitted a freeman before the law restricted the privilege to church members of the Puritan faith. He is said to have been a man of great learning, of fine and generous sentiments, but somewhat queer and eccentric. He lived in this ancient town about nine or ten years, but being an ordained Episcopal clergyman he did not seem to be on good terms with his neighbors, owing, doubtless, to their stern religious belief. He never would join in any church or meeting-house here, saying, "I came from England because I did not like the Lord Bishops, but I cannot join with you because I would not be under the Lord Brethren." He removed away from Boston to Cumberland, in Rhode Island, where he built a house and received the credit of raising the first orchard wherein grew the first yellow sweeting apple. He occasionally, however, visited Boston, and when he became aged and could not walk a great deal, he rode into town on a bull, which he had trained to carry him. He died in 1675; and this excellent, worthy man, who first discovered the beautiful springs of water, without which men and cattle and the birds of the air and all creeping things cannot exist, and invited over to our peninsula an almost dying settlement, turned his weary steps from the town of which he was in one sense the founder, annoyed by his Puritanical neighbors because of his disbelief in their tenets. He now lies buried at Study Hill, R. I., where nothing save a flat stone over his grave marked for a long time the place of his burial. Boston has honored him with the name of one of its squares.

What a shaking and pounding one would like to give these old forefathers of ours for their attempts to stifle the only living force within man—conscience. The heart beats, to be sure, and the blood circulates and will until Azrael—he who is the last to die—fulfils his mission. But conscience, which, as the immortal bard says, "hangs about the neck of our hearts," and is made up of "dangers, doubts, fears and despairs," cannot be stifled even though the blood cease to circulate and the heart cease to beat. The conscience of men has made the world what it is, and as long as the world lives and moves, the thing we call conscience, or whatever it may be, will live and move with it. The Puritani-

cal conscience was a hard, unyielding one! but who can tell the amount of good it has done and is still doing for humanity? Let us revere the old Puritans for the example they have given to the world of enduring spirit, and wipe out their faults, which were those of the times in which they lived, and follow, so far as we can, the footprints for good they have left us.

Think of the dreadful privations they endured, so severe that one wonders how they ever managed to sustain life, when they had but the sea in front of them and the howling wilderness at their backs—think of the little fainting babes and the patient, untiring and enduring mothers, and who will say that the Bostonians of to-day do not owe an incalculable debt of gratitude that our ancient town was settled by those fathers and mothers in Israel of whom John Fiske, that magnificent writer and thinker, says: "They exhibited an unwonted alliance of intense religious enthusiasm with the instinct of self-government and the spirit of personal independence?" Think, too, of the stalwart sires of the early days sitting through the meeting-house service with the mercury at times below zero—no fires to warm themselves—with their matchlocks on their knees, ready for an Indian or a wolf, yet praising God with sincere devotion. It was not until many, many years after the settlement of Boston that the meeting-houses were warmed. Nay, I can well remember even in the 30's I used to carry from my father's house of a Sunday the old-fashioned foot-warmer filled with heated charcoal, upon which rested my mother's feet for warmth; and it is by going back to those old customs and keeping them in mind that we have a due sense and appreciation of the changes in modern life which we now enjoy.

My remarks, from the very nature of the subject, must be desultory, but I shall try to make them not devoid of some interest, although I am sure that your reading has made you familiar with them. And let me say that no greater amount of good has been achieved by any citizen than by Dr. Edward Everett Hale in his late lectures before the Lowell Institute, in calling the attention of the people to the antiquities of the old town of Boston, which are fast passing from us. The birthplace of Paul Revere and the headquarters of General Gage are still to be seen at the North End of the town, but they will soon disappear and nothing will be left save the old burial-grounds of the town, and a few lanes and alleys and narrow streets. All else will be gone; the taverns where our forefathers used to meet have ceased to be, and the old North End, once the home of the best people of the town,

is so changed in its character that one can hardly believe that it ever existed otherwise than in its present condition. There is one monument left which I had nearly forgotten—the old Christ Church, from the belfry of which the lanterns were hung out as signals for Paul Revere, on the night of his famous ride to Lexington. Long may this old church stand, a memorial of the patriotism of our fathers!

One of Hawthorne's pleasant tales was laid in the good old town of Boston, and relates to a young carver in wood by the name of Drowne—in full, Shem Drowne—with whom a certain Captain Hunnewell, commanding the brig "Cynosure," bound to Fayal, contracted to carve a figurehead. The men about Long Wharf and the Town Dock were, of course, curiously excited, and they watched with admiration the gradual development of Drowne's wooden image, and gradually others hearing of the carver's cleverness likewise became interested, among whom was Copley, the celebrated painter. "My friend Drowne," said the great artist, "I have seldom met with a man in your line of business that could do so much. A touch to this figure of General Wolfe, for instance, might make it a breathing and intelligent human creature." The carver smiled, but made no reply. Copley was about to withdraw when his eyes fell upon a half-developed figure which lay in a corner. It arrested his attention at once. "Who has done this? What inspired hand is beckoning this wood to arise and live? Whose work is this? Drowne, you are a man of genius." It was a female figure in what appeared to be a foreign dress; but the story must be read to enjoy all its beauties. This wood carving was the figurehead of the "Cynosure." Its fame spread far and wide.

One fine morning the commander of the "Cynosure" was seen to issue from his residence on Hanover street. "Do you see it? Do you see it? It is the very same—Drowne's wooden image has come to life." The image or apparition, still escorted by the bold captain, proceeded from Hanover street to Ann street, thence into Dock Square, and so downward to Shem Drowne's shop, the crowd still following to witness this modern miracle, this wooden image, endowed with life, speech and motion. Arriving at the carver's door, the marvelous apparition assumed the very attitude of the image, but she and her cavalier had disappeared. The aged, whose recollections dated as far back as witch times, shook their heads and hinted that our forefathers would have thought it a pious deed to burn the daughter of the oak with fire. Shem

Drowne stood beside his creation, but there was no longer any motion in the life-like image. Captain Hunnewell, too, had vanished. Copley, too, went in to look at the image, and said to the carver, "No wonder you were inspired. She first created the artist who afterwards created her image"—"This image, can it have been my work? Well, I have wrought it in a dream, and now that I am broad awake I must finish yonder figure of Admiral Vernon," said the wood-carver.

There was a rumor in Boston about this period that a young Portuguese lady of rank, on some occasion of political or domestic disquietude, had fled from her home in Fayal and put herself under the protection of Captain Hunnewell, on board of whose vessel, and at whose residence, she was sheltered until a change of affairs. The fair stranger must have been the original of Shem Drowne's wooden image.

Sir Edward Vernon, the distinguished English admiral, born 1684, died at his country seat in Suffolk, England, in 1757. He was in several important engagements between the French and Spanish and English forces, and attained the rank of rear-admiral in 1708, remaining in active service till 1727, when he was elected to Parliament, where he remained till 1741. In the House of Commons he was a thorn in the side of the ministry, without respect of persons, and in a debate declared that Porto Bello could be taken with six ships. The ministry sent him to the West Indies with six men-of-war in November, 1739, and the day following his appearance there Porto Bello was captured, in which he lost but seven men. In 1741 he suffered defeat before Cartagena, one cause of which was the severe loss of his men by sickness. Vernon did not lose his popularity in England or the Colonies.

I have endowed the little wooden image which Shem Drowne set up in 1770 with motion and speech that he might tell us something of the days before the Revolution, just as Hawthorne, our most charming of New England writers, did with the figurehead of Captain Hunnewell's ship, so beautifully described by that great master mind.

The life of good Deacon Drowne cavered nearly a century, or from 1682 to 1774, two years before the Declaration of Independence. He was brought up an artisan, his principal occupation being that of a copper and tinsmith; but, having a head filled with brains, he became by turns a carver in wood and metals, and a maker of vanes, as certain now-existing evidences go to prove. One of the most noted of his productions was the Indian chief,

with a drawn bow and arrow, that surmounted the old Province House, which stood about seventy feet in the rear of Washington (then Newbury) street, nearly opposite the head of Milk street. The building ended by being the headquarters of a minstrel troupe, conducted by Morris Brothers, Pell & Trowbridge. The old house could be seen from the street, but the march of trade caused it to be surrounded by shops, which now occupy its site. The old province House, in the days when the town of Boston was the place of residence of the numerous wealthy families of New England, was one of the most distinguished of edifices. During the time that Massachusetts was under the administration of the so-called Provincial Government—an appointment in the hands of the mother country under the provisions of the second charter, which was granted in 1691, uniting the colony of Plymouth with that of Masachusetts Bay—the old landmark referred to—for there is little left now to tell its story—could be traced back through the Revolution and through provincial times to the good old colonial days. It was built, not for governmental purposes, as has been supposed, but for a private residence, by Peter Sergeant, one of the most opulent merchants of the old town, who purchased the land in 1676 for the small sum of £350. As far back as 1643, one, Thomas Millard, had for one portion of his estate a piece of property on the High Street, as it was then called, or the great highway to Roxbury. This High Street later became Cornhill, Newbury street, Orange street, and, still later on, Washington street through its entire distance. It is supposed that Thomas Millard owned the lot on which formerly stood the Province House.

Millard's neighbor on the north was a Mr. Lyle, a noted surgeon-barber, ready to insert a lancet or apply his scissors, as the case might be; for in those days barbers were the only surgeons, as far as simple bleeding was concerned. North of Lyle lived one, Samuel Hough, said by the historian to have been a "disgusted and retired clergyman." He dwelt on the corner of School and Washington streets, where our excellent friend Mr. Richard Briggs carried on his extensive china and crockery business. Millard died, and his estate finally passed into the hands of the before-mentioned Peter Sargent, in 1676, who thereon built a handsome residence, and affixed upon the ironwork over the door his initials and date thus:

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indicating the date of the completion of his mansion. Sergeant was a Londoner, and became a resident of Boston in 1677. A curious story is told concerning his marriages. He had three wives, his second having been a widow twice before she married a third time, with Peter. She having gone the way of all flesh, this much-married gentleman took a third wife, who was also a widow, who, after becoming Peter's widow, became the widow of a third husband, one, Simeon Stoddard, in just three months from the demise of the "late lamented" Peter. Singular to relate, she was Simeon's third wife; but being naturally of a strong constitution, she outlived her third spouse to quite an advanced age. Simeon having a house of his own, the Sergeant estate was sold to one, Elizius Burgess, in 1713, and bought by the Province of Massachusetts, for which it paid about £2,300.

Now we come back to Deacon Shem Drowne's Indian—a great work of art for its day, just as in ante-revolutionary times the cups, pitchers and other work in silver of the celebrated Paul Revere were sought after and considered to be the things, and to-day possess a value far beyond dollars and cents. This Indian is now in the possession of the Masachusetts Historical Society in this city. All the governors, it is said, from Shute to Gage, used the Province House for official busines and social receptions. After the Revolution, says excellent authority, it was known as the Government House, and was occupied by the State officers until the completion of the present State House in 1798, which, by the way, stands on what was formerly an old cow pasture owned by Governor John Hancock. The cornerstone of the present building was laid by ex-Governor Sam Adams in 1795, with appropriate ceremonies, in which the Grand Lodge of Masons of Massachusetts participated.

But, during his almost century of active life, the designer of the Indian on the old Province House went about the streets of Boston in a quiet way attending to his business, and when called upon doing something in his line to render his name famous. He seemed to have a particular liking for vanes and figure-heads of vessels, those of the latter which have been handed down to us by he antiquary having been specimens of beautiful handiwork. The grasshopper vane on Feneuil Hall was his work. The following quaint inscription, taken from the original manuscript now in possession of the Bostonian Society, reads:

"Shem Drowne made it
May 25, 1742.

"To my Brethren &
Fellow Grasshoppers
"Fell in ye year 1753. Nov. 18 early in ye
Morning by a great Earthquake * * *
by my old master above
"Again like to have met with my Utter Ruin by Fire
but hopping timely from my Publick Scituation
came off with broken bones and much bruised,
Cured and fixed.
"Old Master's Son Thomas Drowne June 28 1768
and though I will promise to * * *
Discharge my office yet I shall vary as ye Wind."

The reader will notice that the lapse of time has somewhat interfered with the ready reading of the quotation. This grasshopper is said to have been sugested by the vane on the Royal Exchange of London, and it was also the device on the summer estate of the Faneuils on Tremont street.

Deacon Shem Drowne's workshop was in Ann street, and it was there he made an ancient weathercock for the new brick church, in the shape of an immense cockerel, from which the edifice was called "The Cockerel Church." The historian tells us that standing aloft on his perch day and night, through sunshine and storm alike, he kept watch and ward over the town like a faithful sentinel for one hundred and forty-eight years. No object in Boston town was more conspicuous to the townspeople or to the mariner coming into port than this famous bird—

"With head erect and unruffled form,
The hearty and tough old cock,
Through wind and rain and cold and warm,
All weathers continues to mock;
And he whisked him round to face the storm,
And trusted himself to the shock."

This bird was manufactured by Shem Drowne in 1721, and, according to an ancient story, was made out of old brass kettles, skilfully hammered into shape. It weighed when finished one hundred and seventy-two pounds, and was five feet four inches in height (as tall as a moderately-sized young woman). It is said,

when it was first erected and swung to the wind, a young fellow, probably one of the workmen, straddled the bird and gave three loud crows to complete the ceremony. This bird was subsequently taken down, ornamented and replaced, but early one evening in September, 1869, a terrible gale occured in our city, and this gallinaceous fowl was blown from his perch, after having been seen by passers-by hopping about in great distress, and he flew, so it is said, of his own accord, about a hundred feet to the leeward, alighting on the top of a house in New Prince street, when he descended unceremoniously through the roof into a cosy kitchen, and dreadfully frightened a poor girl who was preparing supper. The bird suffered more than the girl, for he had his comb flattened, his breast-bone fractured, and his plumage knocked about pretty lively. He was taken in charge by the surgeons, who made of him a new bird; but, as the old church was shortly after demolished, he was taken out to the Shepard Memorial Church in Cambridge, where he feels at home, standing guard over the Washington Elm and Harvard College.

Shem Drowne, the deacon and artisan in copper, wood and tin, lies buried in old Copp's Hill Burial-Ground, near the spot where rest the remains of Edmund Hart, builder of the old frigate Constitution, where a stone is erected to his memory.

But there is one more evidence of the deacon's great artistic worth in the figure of that fine old Admiral Edward Vernon, which stood on the State Street side of Thaxter's mathematical instrument shop, on the lower corner of Broad Street, where it has been in all sorts of weather for more than one hundred and thirty years, with the exception lately of the cold nights, when he has been taken in and warmed up on account of his great age. Reflecting upon this little figure and the many scenes it has looked out upon for such a length of time, which appears to us all of historic interest, a kind of sleepy feeling came over me, and before I knew it I was dozing off into the Land of Nod; but pulling myself together, I found sitting beside me the little admiral with his quadrant. I could not believe my eyes. How could he have got there and how could he have bent that firm little form so as to be seated the first time for more than a century? His eye was fixed on space, but with a bird-like voice, as if it came from a wound-up machine, he said:

"Why don't you give them something about two of the greatest men America has produced—Hancock and Adams—the true Sons of Liberty, whom I have seen pass and repass this old shop hundreds of times during the days of the old Stamp Act; and Gage, too, and

Hutchinson? Why don't you tell the young people of to-day of them and of Sir William Howe, who, although I never saw him, has a history? Tell the girls and boys about the queer customs of the eighteenth century, and of the places where now there are grand residences that were in my day but ponds of water."

"But, my good sir," I said, "all these things are written down, and can be read. The world has been going on while you have been standing still. The art of printing has improved facilities for reading; and the newspaper of to-day, for example, is not like the *Boston Gazette* of 1770, when you were first put upon your feet. We have the news of the world every day, and on Sunday page after page to read before we think of our baked beans and fishballs."

"Yes," he said, "I have heard of those noble dishes, and I feel hungry standing out there in the cold day after day without a bite of anything. What a comfortable room this is! How I would like to sit by you of an evening, and tell you of the events of the days that tried men's souls! I saw the great Washington when he entered Boston after the siege; and Franklin, too, who drew lightning from the clouds; and Lafayette, and hosts of patriots of a century ago. They have all been to look at me, young and old, the great, the good and even the meanest of God's creatures. I saw, too, in 1789, as I held up my quadrant, the first President of our country make his first official visit to this city. I was then nineteen years old, for Shem Drowne set me up in 1770; but as long as I have legs to stand upon I shall never forget the Father of his Country. I could tell you of the old governors who now rest in the King's Chapel and Granary Burial-Grounds; and of the beautiful women of this old town, with their high headdresses and bare arms, the great-grandmothers of the children of to-day, who came to look at me out of curiosity; and of Concert Hall in Court Street, and the dances there (for I was quite a wild and lively youngster) evenings after they had shut me up and they thought I was all right till morning. But I am getting rather old now. I shall have to be dressed up in a new coat before long; my eyes are still good, and I could hear every word that was said as I stood looking at the passers-by. Ah, I could tell you a little history! I fear I am troubling you, but have you such a thing as a glass of grog to cheer an old man's heart? You know I was the first to make grog for my sailors. Oh, it's true!"

So I brewed the little old gentleman a glass of nice Pepper whiskey, and was about to add the water when he groaned out, "But little water, thank you." And as I turned to hand it to him my eyes suddenly opened, and I stared around to look for the little admiral,

but he was not there; he never had been there. And I rubbed my eyes for fear he might be lurking in my library. I was still at my table with my pen, on which the ink was not yet dry. There only remained a reminiscence from the dead, for Deacon Shem Drowne and the old Province House are things of the past.

In William Blackstone, or Blaxton, to whom I have heretofore alluded, there undoubtedly stands the first white settler of the peninsula. He is thought to have settled on what is now in the neighborhood of Louisburg Square, where there was an excellent spring of water, the knowledge of which, coming to the ears of the Charlestown settlers, induced them to leave and come over to Shawmut, as Boston was then called, as the water in Charlestown was brackish and unfit to drink if the settlers desired to retain their health. Blackstone in 1633 had fifty acres allotted to him by the town, of which he subsequently sold forty-four acres, being all his purchase excepting six acres, the sale including all his right in and to the peninsula. The price paid for the whole peninsula of Boston was £30, which was assessed upon the inhabitants according to their circumstances and condition. After the purchase of Blackstone's forty-four acres, the authorities laid out upon the land the training-field, which was the origin of Boston Common. The six acres retained by him came finally into possession of the great painter, John Singleton Copley; and the lot ran up from the water at Charles Street, through Beacon and Walnut Streets, into Mount Vernon Street, thence into Louisburg Square and Pinckney Street. From Copley it went to the Mount Vernon proprietors, of which corporation Harrison Gray Otis and Benjamin Joy were prominent owners. The mansion of Otis stood on a portion of the six-acre lot reserved by Blackstone, and subsequently known as the Copley lot, which his son, afterwards Lord Lyndhurst, Lord Chancellor of England, sold to Otis, Joy and others at the opening of the nineteenth century The Otis house stood in the vicinity of the present Somerset Club House.

The State House is built upon land bought by the state of Massachusetts from the heirs of John Hancock, who inherited it from his Uncle Thomas, a well-known merchant of the old town. Its site is where in olden time was the highest point of Beacon Hill. Leaving this beautiful building, the design of Charles Bulfinch, a Boston boy, we pass down Park Street by the church, and come to the Old Granary Burial-Ground.

I never knew what a bumptious little man the old wooden Admiral Vernon was until a few evenings since, when I heard an uproar before my residence, fronting Louisburg Square. I took occasion to raise the curtain of my library window to look out, and there I saw quite a gathering, which led me to put on my hat and coat and go out to ascertain if possible what could be the matter at an hour so unseemly, when all honest people should be in bed. To my utter astonishment, I found the little admiral, still with his quadrant to his eye, endeavoring, as one colored youth expressed it, "to shin up the fence" which faces the statue of Columbus on the westerly side and Aristides the Just on the easterly end of the square, My mind misgave me as to his condition. How he managed to keep his feet was marvelous. I am sorry to say that he appeared to be in liquor. Not a word did he utter that was not in a piping treble, and in so disconsolate a tone that I feared the fast-gathering throng would do something rash to his tiny limbs, cocked hat, waistcoat and quadrant if I did not interfere to prevent such an ignominious sacrilege.

"Oh, no, let me alone; I will get over. I want to look for the spring of water which Deacon Shem Drowne told me William Blackstone had in the middle of his garden, and which you young pirates call Louisburg Square. Let me alone, I tell you. I will get over and find the famous spring which brought Governor Winthrop and the early settlers from Charlestown to Boston."

He was truly in a maundering condition. His voice, usually clear and bird-like, was more like that of a crow attempting to imitate a canary. "Why, he must be under the influence of the ardent," I said to myself; and then, too, to think that he of all men, the inventor of grog, should be hunting up an old dead-and-gone spring in the middle of that square, where there was hardly light enough to distinguish a feature. I pressed forward through the crowd and took him by the arm, that good, right arm which the real admiral, Sir Edward Vernon, had used so faithfully for the interests of Great Britain. "What makes you out so late, Admiral?" said I. "Did they forget to put you under padlock and key; and what, in the name of everything good, do you want of water, unless, as your crew would say, you have hot coppers? Do you know how late it is? You can't stay here all night. If you do, the urchins will have the various parts of your body snugly stowed away, and no more, as a whole, will be seen or heard of Admiral Vernon, who for many a long year has kept watch and ward over William Williams's and Samuel Thaxter & Son's precious property on State Street." "Why, I do declare, it's Mr. Pepper," said he. "Go away, you bad boys; scatter, or I'll give you

a round dozen apiece. I am Admiral Sir Edward Vernon, and respected I will be. I helped destroy the French and Spanish fleets off Vigo Bay, aye, as far back as 1702, and now they are fishing for the spoils that are resting at the bottom of the sea. Why, I was made an admiral in 1708. Yes, and was afterward sent to Parliament, where I damned the ministry pretty effectually, without fear or favor of persons. I told them, in a debate, which I well remember, that I could take Porto Bello, in New Grenada,—that's down on the Spanish main, you know,—with six ships; and I did it, and was made vice-admiral of the blue for it. This was in 1739; but when I attacked Cartagena I did not get off scot free. Read up your 'Roderick Random,' youngsters, and see what Tobias Smollett says of that battle, for he served in it as surgeon's mate." How much longer the little admiral would continue garrulous I do not know, but thinking he might be set right by a hair of the same dog which had brought him to such a pass, I mentioned that I had a little of the old Pepper left, whereupon he consented to go with me. As it was getting to be close on to midnight, he struck his favorite attitude, the boys departed after a loud hurrah, which woke up the Sisters of St. Margaret, putting him in mind, as he said, of the old days before the Revolution, when once his nose was tweaked because he was a Britisher, and a howl of delight came from the lungs of the younger Sons of Liberty as Master William Williams drove them from Broad Street to Long Wharf.

After a free use of the beverage he consented that I should be his guide over Beacon Hill, down School Street, and so on to his nightly resting-place. We had gone as far as Mr. Richard Briggs's store on the corner of School and Washington Streets, when either his humor or his inebriated condition induced him to prop himself up opposite the "Old Corner Book Store," which is now one of the lost relics of the city. And here he began to meditate quite loudly upon the vanity of mundane things, and to quote very freely upon what he had heard Shem Drowne and other men of his early days tell of that old corner, where, among others, our friend Alexander Williams held sway for so many years. "Why," said the little man, "it is just near here where Governor Winthrop lived, and just beyond his house, below the Old South Church, was the 'Springate,' which you men of to-day call Spring Lane. In that lane, exactly opposite to the spot on which stood a little chapel erected by the Old South Church, there was, in my day, a wooden pump with a wooden nose and iron handle, and underneath was the site of the spring, which in the early days of the town was fenced in and was approached through a gate. Thus

came the name of Spring Lane. I suppose it was thinking of what my old master, Shem Drowne, told me, that walking by the spot led me up on Beacon Hill to find the spring which was in William Blackstone's garden.

"But I feel all right now," he said, "and I will tell you what I have heard about the Old Corner Book Store. How quiet and still it is, to be sure! Why, in my day, when Court Street was Queen Street, and the whole length of what is now known as Washington Street was known as 'the highway leading to Roxbury,' this old bookstore stood on what was known as 'the lane to Sentry Hill,' or, as you call it, Beacon Hill; and that lane is now School Street, and there was plenty of passing. Just above us was the old burying-ground, where it is said that goodman Isaac Johnson lies buried, near to what was the highway to the Common, or Common Street, now Tremont Street. Why, I have listened hours and hours to these tales, till they are embodied in my memory like a solid block. I have heard it said by Shem Drowne that not long before his day there were but three estates on School Street, and now look at the street and the old bookstore opposite. Who stops to think how much of old history has been realized in and about this interesting place! In front of the old store, or nearly so, there lived not only the governor, in early times, but other noted men; and almost within hailing distance was the market-place, town house, the schoolhouse and the ever-flowing spring of pure water. Well, I've had enough of water in my day, mostly salt, however." "But," I said, "where did you stop before getting over Beacon Hill to Louisburg Square?" The ancient Briton did not deign a reply, although he emitted a kind of gurgling noise, indicating to my mind that some one, possibly a sailor, had treated him to that sort of liquor which is said to kill at forty rods. He was now wide awake, and held his tongue, instead of affording the slightest explanation, fearing, perhaps, that on some future occasion he might possibly meet the sailor again and have another bout.

"This corner," he said, "once extended to the present City Hall on School Street, and northerly on Washington Street a great way, and the whole was the property of William Hutchinson, the husband of Mrs. Ann Hutchinson, on account of whose tenets so many good people were disarmed in 1637. Old Deacon Drowne used to say that the Hutchinsons came over in 1634, and that William was banished on account of his belief in the peculiar theological views of his strong-minded wife. What became of Ann Hutchinson? Why, she made such a stir among the God's people of early days that she received

orders to leave the jurisdiction, and went with her husband and family to Rhode Island in 1642. After the decease of her husband, William, she removed into the Dutch settlement beyond New Haven, and in the following year she and all her family, consisting of sixteen persons, were killed by the Indians, save one daughter, who was carried into captivity. But all this is a matter of hearsay; it was long before my time; but old Shem was a good story-teller, and had a powerful memory. I suppose there's no use of our going back to Louisburg Square and finishing the remains of the old Pepper whiskey? I don't mind it, if you don't. By the way, how it does warm the cockles of one's heart—smooth as satin and tastes like nectar! I doubt if the gods ever had such a drink. You won't go? Well, I'll be sure to call some night. Don't waste it, will you? You can't think how beautiful it brushes along the palate of an old fellow of my age; only one hundred and thirty-four, though, not very old compared with the Old Corner Book Store. Now, in course of time, the old corner lot, which was then about half an acre in extent, fell into possession, so I have heard, of one, Richard Hutchinson of London, who is said to have been a linen draper, and afterward a famous ironmonger of London; and I have heard Shem Drowne say that he became so wealthy as to be able to lose in the great fire of that city at least £60,000 without failing. He sold this lot of land to one, John Webb of Boston, for £75, and he sold off a portion of the lot, measuring fifty-nine feet, upon 'the highway to Roxbury,' and one hundred and fifty feet upon School Street, to Henry Shrimpton, for £40, who fenced it in for a garden, and erected on it a garden-house. Henry Shrimpton, dying in 1666, devised the estate to his daughter, together with £300 to build a house upon it. She married a Zachariah Bourne, and they dying, the property passed into the possession of their two daughters, who resided in Westminster, England. In 1707 one, Thomas Crease, an apothecary, purchased the property, with its improvements. Now, in 1711, there was a great fire in Boston, which burned the buildings on the old corner which Mrs. Bourne had erected, and soon after Dr. Crease sold the estate for £1,200 to two parties, one of whom was Nicholas Davis, a merchant, who had a son Anthony, who was about to marry one, Elizabeth Adams of Dorchester, a daughter of William Adams of the Island of Barbadoes. Do I think the old corner looks as it did a hundred or more years ago? I should say it did; but up School Street, toward City Hall, there have been vast changes. But, you know, I don't see these places in the daytime;

I can't get out then. I can only 'hook Jack' at night, and I've been all over the old town and given the lads and lassies many a scare as they were going up the mall on the Common or round the old Granary." "But, my dear Admiral, it's getting on to be the short hours of the night—ought we not to be moving toward State Street? I shall then have to climb Beacon Hill alone, and what will my good wife do, and her husband out so late?" "You've been to sea, have'nt you?" he said. "I know by your roll. Let me have a little more of a lark, for I've not been out since you and I tasted the old Pepper together before." "Well," I said, "if you ever expect to taste it again we had better make for State Street, where I hope you will be found in the morning guarding the property of Samuel Thaxter & Son."* So we wended our way, he rather grumblingly as I thought, until we reached the corner of Broad and State Streets. "That's a wonderful star overhead," said he; "why, it's Jupiter, I think." Naturally I looked up—the night was cloudy as it well could be. I sought in vain for stars; there were none; neither was the little admiral at my side. He had vanished into his den.

Thousands upon thousands daily pass and repass the delightful old burial ground on Tremont Street, adjoining Park Street Church, known in olden times as the Granary, without giving a thought to the dead who lie within its limits. It is third in point of age, the King's Chapel Burial-Ground and Copp's Hill Burial-Place being the two oldest. The Granary, in the early part of the eighteenth century, was known as the South Burying-Ground. Here rest the remains of the first governor of this Commonwealth under the present Constitution, John Hancock, whose remarkable autograph stands at the head of the signers of the Declaration of Independence. The coffined body of Governor Richard Bellingham, who died in 1672, at the age of eighty-four, was found one hundred years afterward floating around in the ancient vault. As Shurtleff says, "One hundred years form a strong period for such a kind of navigation." Under a very conspicuous monument erected by Benjamin Franklin rest the remains of his parents, and near by is the grave of his Uncle Benjamin, for whom the great philosopher and statesman was named.

A tablet directs one to the grave of Woodbridge, who was killed in a duel on the Common in 1728 by Henry Phillips. Phillips subsequently left the country in one of Peter Faneuil's vessels, and he mourned until the day of his death the death of his

*Now at 35 Central Street.

young companion, for they were friends till the fatal occurrence. In this enclosure are the remains of many of the eminent men of old colonial and provincial times, and where horse-cars used to bring up with a jerk and go away again at the sound of the starter's whistle lie buried, in addition to Bellingham and Hancock, Governors Bowdoin, Samuel Adams, Sumner, Sullivan, Gore and Eustis; also Robert Treat Paine, a signer of the Declaration of Independence; Judge Samuel Sewall of noted memory, the author of the famous Diary which bears his name, and who is known as the "Witches' Judge"; Edward Rawson, secretary of the colony; Peter Faneuil, who gave the Cradle of Liberty to the town; John Phillips, the first mayor of the city; and a long list of other prominent names, among which none is of brighter renown than that of the well-known revolutionary patriot, Paul Revere, the Son of Liberty and great mechanic, than whom no one did more to secure the liberties of the people.

He was a man of the people, a Boston boy, born in 1731, and brought up to his father's trade of a goldsmith. He was the friend of James Otis, John Adams, Samuel Adams, Joseph Warren and the other patriots of the day. He it was of whom Longfellow wrote so beautifully and has immortalized. Let us honor these dear departed ones who in their lives were the tried and true friends of American Liberty.

Antiquaries may know of the fact, but I am not sure that our little world here in Boston does, that in 1775, near the center of our beautiful Common, the British raised a fort, the remains of which within a comparatively few years were visible; and I am not sure that if one walks to the south of the Frog Pond he will not find the hill which served to overlook with its mounted cannon the then town of Boston.

By the way, old Governor Richard Bellingham, who died in 1672, lived on Tremont Street, not a stone's throw from where Houghton & Dutton's window shines so beautifully at night. Sir Henry Vane, while governor, lived in a small house on Queen, now Court, Street. Governor John Winthrop lived on Washington Street, between Spring Lane and the lot upon which the Old South Church, the real Old South, now stands. Isaac Johnson, the husband of Lady Arabella, daughter of the Earl of Lincoln, lived in School Street just below where the City Hall now stands. He owned the whole square between Court and School Streets and between Washington and Tremont Streets, and was said to

have been, next to Blackstone, the largest landholder of those days.

The ancient landmarks of Boston have nearly all disappeared with the growth of the town; they can be counted upon the fingers, and but few of the streets, lanes and alleys upon which our ancestors lived, and through which they took their daily walks, bear their original names. How far modern taste has improved them is a question. What is now Washington Street was then Orange Street, from the Neck to Essex Street; from Essex Street passing by to Bethune's corner (West Street), to Winter Street it was Newbury Street; from Winter Street to School Street it was Marlborough Street, named after that great saldier of Queen Anne's day, John Churchill, Duke of Marlborough; and from School Street to Dock Square it was Cornhill, in which locality were the dry-goods shops, and where the late philanthropist and merchant, Amos Lawrence, laid the foundation of his fortune, a large portion of which he laid out so nobly. Here, too, with him was his brother Abbott, whose residence was on Park Street, the house now known as the Union Club. He was, after the close of his mercantile career, minister to Great Britain.

Hollis Street, where the beautiful theater now is, was originally called Harvard Street, and the church, as the theater was then, was that of the famous Mather Byles, the wit of whom so many stories have been told, and the friend of the English poet, Pope. A reminiscence occurs to me. When I was a boy the two daughters of Dr. Byles were prim old ladies, living in what had been their father's house; it set back from Common Street, which, instead of going through what is now Tremont Street, turned and went into Washington Street. On cutting through and extending Tremont Street about 1830, or, as it was usually called, Tremont Road, it became necessary to cut through a part of their lawn, which destroyed the appearance of their property; the remainder of which was taken by the city and sold; this vandalism, as those two ancient dames called it, disturbed their equanimity, but the old house had to go. As a little boy living not far off, I well remember their appearance and prim ways, although it is more than seventy-five years ago; they berated the workmen in a most lively manner as the cutting went on, and never got over the sacrilege, as they termed the march of improvement. For about half a century after the royal government had ceased to exist in these States, they retained their love of and strict adherence to the belief in kings and monarchies, and actually refused to

acknowledge that American independence had transferred their allegiance to new rulers. They worshipped at old Trinity Church on Sumner Street. When in good humor they would relate with pride their walking on Boston Common arm in arm with Gen. Sir William Howe and Lord Percy, whose career at Lexington is known to nearly every school-boy in the land. One of these ancient relics died in 1835, the other in 1837, stout, unflinching royalists to the last.

Winter and Summer Streets have always borne the same names since from lanes they passed into streets, about 1650. Bedford Street was called Pond Street; and Milk Street, School Street and Beacon Street were the same as now. Boylston Street was Frog Lane; State Street was King Street; and Court Street was Queen Street, and naturally when the Revolution changed the great affairs of the nation, the smaller ones did not go unattended. Williams Court, which ran back of the present Herald Building, was in old days Savage's Court, named after a Major Thomas Savage, who was a well-known townsman of early days. Brattle Street was Hiller's Lane and Elm Street was Wing's Lane. Union Street, on which stood the famous Green Dragon Tavern, the scene of the meetings of the Sons of Liberty presided over by Paul Revere, is the same to-day; there is no record of any other name, and long may it continue to bear it! Tradition says that on the lower or north corner of this street, where the sign of the Blue Ball was known to be, that great man, statesman, philosopher, scientist and above all patriot, Benjamin Franklin, was born. He was baptized in the Old South Church, opposite to which, in Milk Street, the family afterwards removed.

Doane Street was Lobster Alley; Atkinson Street, now Congress Street, was Gray's Lane; High Street was Cow Lane; Broad Street was Flounder Lane; Kilby Street was Cooper's Alley; Bromfield Street was Rawson's Lane; Federal Street was Long Lane; and so on ad infinitum. An eminent man was Edward Rawson, who lived in the lane bearing his name. He was chosen annually secretary of the Massachusetts Bay Colony for thirty-six years, until after the government fell into the hands of Sir Edmund Andros.

Edward Rawson lived on what is now one of the busiest of our narrow streets, Bromfield. He became in 1636 or '37 a resident of the old town of Newbury, and held office there until in 1650, having been elected secretary of the colony of Massachusetts Bay, he removed to Boston and lived thereafter until his

death, in 1693, in the lane which bore his name until 1800. For one hundred and fifty years Edward Rawson's name was honored in that of the name of the lane in which he lived, and no good reason has ever been given why it was changed to that of Bromfield. He is more honored to-day in the town of Newbury, by the retention of the name of Rawson's Meadow to a plot of ground he once owned there, than he is in this city. He lies buried in the Old Granary Burial-Ground.

One old landmark of ancient Boston is the supposed site of the first tavern located in this town. One, Samuel Cole, was the first innkeeper; his house was opened for custom in 1634. It was in Corn Court and delightfully situated, having a fine view of the harbor. Then the tide came up to Dock Square. From the first it was a popular resort. In October, 1636, Gov. Sir Henry Vane entertained, with his twenty followers, a celebrated sachem of the Narragansett tribe of Indians. In 1700 the house was reconstructed; later on, before the Revolution, it shared with the Green Dragon in the meetings of the patriotic townsmen, and was undoubtedly a resort for many who participated in throwing overboard the tea in December, 1773, who disguised themselves there as Indians.

It is told in the old records that within a minute's walk of what was supposed to be the site of the old conduit (toward the building of which Capt. Robert Keayne, the first commander of the Ancient and Honorable Artillery Company, gave a large sum for those days, he dying in March, 1656), there was more of historical interest than elsewhere on the peninsula, or what then constituted the town of Boston. This conduit, which answered the purpose of a reservoir in that day, was in or near Ann Street, now North Street, and that portion of the thoroughfare on which it was placed for a long time known as Conduit Street. When one got from there into Washington Street, he was in the "High Street leading to Roxbury," but if he wanted to divert his route, he branched off into streets and lanes which were called by the names of the persons who lived in them, or by "going from" such a house or pasture to so and so.

Near to Ann Street, which, many of your older readers will recollect, had not a very savory reputation even in later days, stood what was known as the Old Dock, and on the corner of Dock Square and the old Corn Market was the Sun Tavern. It afterward became the grocery store of George Murdock. His successor was A. A. Wellington, who, in the process of time and

by the continual pushing of trade, found himself in the neighborhood of the Old South, on Washington Street, where his business career ended. This old Sun Tavern, according to Porter, the very best authority on such matters, must have been a wonderful place It dated back certainly as far as 1690. It was one of the last survivors of the earlier landmarks of the town, and was, in its day and generation, one of the most conspicuous corners about the Old Dock. It was originally a residence, then a tavern, afterward a grocery, and finally a market. Probably not one of the early houses of the town of Boston had such a varied career as this old building, which was by more than half a century older than Faneuil Hall, from the spire of which Shem Drowne's grasshopper looked down upon it for many, many years. One, Thomas Phillips, in 1702, obtained a license for the Sun Tavern; afterward one, Samuel Mears, became proprietor, say about 1724. It subsequently fell into the hands of Paix (Peace) Cazneau, a Huguenot from Rochelle, who made the Sun Tavern attractive to the young bucks of the town, not only by the good cheer which he dispensed, but by the beauty of his two daughters, Susannah and Elizabeth. The first named became the wife of Col. William Palfrey, of Revolutionary fame, and grandfather of the historian, John G. Palfrey. Elizabeth married the celebrated printer, John Fleet, who had his printing office on a portion of the land now occupied by the building of the New England Mutual Life Insurance Company, on the Congress Street side.

The Sun Tavern was a great place for club meetings. Just think of it, you club men of to-day, having to wander down to Dock Square and the old Corn Market to hold your convivial gatherings! Our authority goes on to say that the Scots' Charitable Society used to hold their meetings in this old hostelry, because the Crown Coffee House, wherein they had previously met, which was situated at the head of Long Wharf, was too small for their purpose. Finding, however, that the Sun Tavern reckonings were rather high, they voted that each member should pay a "pistareen," which was an old Spanish coin common in our youth and of less value than a real quarter, at each regular meeting, of which sixpence sterling was to go to the poor of the society and the remainder to the tavern. Those were certainly queer old days, when the tavern got its full allowance.

When the late Stephen G. Deblois, for so many years the respected treasurer of Trinity Church, was alive, he read to the writer a portion of the records of the doings of the wardens and

vestrymen of that venerable church. Their meetings used to be held at one of the old taverns at the full of the moon, and the last man in was to pay the score; the full of the moon being undoubtedly selected that these ancient Christians might more easily find their way home.

During the siege of Boston it is said that the British took possession of the Sun Tavern, and changed its name to the "King's Arms"; but, on the evacuation of the town, the old name was restored. The adjoining property was once owned by Capt. Thomas Savage, who was made a major-general in 1635, took the oath the following year, and was "disarmed" in 1637. But in 1651 he was captain of the Ancient and Honorable Artillery Company, and had a brilliant colonial fame, having been a commander in King Phillip's War in 1675. His tomb is in the southwestern corner of the King's Chapel Burial-Ground, where his remains were interred in the year 1682.

Near the old corner where Alfred A. Wellington had his grocery store for so many years, and where the brethren of St. Andrew's Lodge of Masons used to meet and talk over old "Green Dragon" times, as well as more modern Masonry, on which formerly stood the old Sun Tavern, was Corn Court, in which was the Bite Tavern, kept in modern days by one, James M. Stevens, originally called the "Bight of Logan." This was a famous hostelry for market-men, in old as well as later times, and for those who relished a "quiet little game." In early days the tide came up to where Faneuil Hall now stands, and there was nothing but the harbor seaward where now are blocks of beautiful stores. When Governor Vane invited the Indian chief, Miantonomoh, sachem of the Narragansetts, to visit Boston in 1636, it was at Mr. Cole's inn he entertained him and his staff of twenty men, and the following year Lord Leigh—spoken of by Winthrop in his journal—found such comfortable quarters at Cole's that he preferred staying there to going to Governor Winthrop's house, giving as a reason that he did not wish "to be troublesome to any, and the house where he was was so well governed that he could be as private there as elsewhere." Samuel Cole was a famous man in his day—a selectman, a charter member of the Ancient and Honorable Artillery Company, and, moreover, a large property owner. Peace to his manes!

When John Hancock was elected governor of Massachusetts in 1780, this house took the name of the "Hancock House," and bore a portrait of the first governor of our beloved Common-

wealth as a swinging sign. John Duggan was then the landlord, and, it is said, supplied the governor with "lemons and limes." He was a firm friend of the governor, under whom he held a commission of some sort, and wore a sword and sash which Hancock had presented him. At the death of Hancock, in 1793, this portrait was draped in black. This old tavern has a curious history, dating back at least one hundred or more years. It was a favorite resort for foreigners, particularly the French. Talleyrand was a guest at the old Hancock House in 1794, and that estimable man, John Cheverus, the French priest, who came to this land of freedom to escape the horrors of the French Revolution, and who was subsequently the first Roman Catholic bishop of Boston, lived in this house on his arrival here in 1796. The following year a more distinguished exile lodged here, Louis Phillippe, afterward king of the French, and it was in this old inn that he gave lessons in the French language while awaiting his remittance from home. It is said, upon good authority, that both Talleyrand and Louis Philippe were frequent visitors at the office of the Centinel in State Street to look over the files of the Moniteur for the latest news from France. Who of us has not in one way or another seen or heard of the editor of the Boston Centinel, Major Ben Russell, who, while he was in the American army, saw the execution of Major Andrè! Talleyrand, to show his appreciation of the courtesies the editor had extended to him, presented Major Russell with a valuable gold snuff-box, and M. D'Orléans, as Louis Philippe was called, gave him what was then very rare indeed,—an atlas. Both gifts the Major was fond of showing to his friends to the day of his death, in 1845. The writer's boyish memory of "old Major Ben. Russell" is that he was an inveterate snuff-taker, and wore a magnificent shirt front of fine lace, such as was known by our sailors a half century ago as a "flying jib." The Centinel under his able management was a power for good.

The landlords of this old tavern used to point with pride to the bedstead in which Louis Philippe slept, to the nail on which Washington once hung his surtout and chapeau when he dined in the front parlor, and to the corner where Franklin used to place his umbrella and the table at which he sat to take his coffee while reading the latest Boston paper. In the war between the United States and Great Britain, in 1812, this inn was a famous resort for the officers of the army and navy, and subsequently was taken possession of by business men for the purpose of

drinking the famous punch which the hostess made, and for which she was noted for half a century. She was the grandniece of Lieut.-Gov. Spencer Phipps, and married for her second husband William Brazier, and the house was known for many years as the Brazier House. This lady was a woman of unusual energy and attractiveness, and succeeded in drawing and keeping her customers, as did Mistress Quickly in Shakespeare's "Henry IV."

There was a tavern which stood for many years, as far back at least as one hundred and fifty, on the corner of State Street and Merchants Row, called the Admiral Vernon, kept then by one, Richard Smith, and it had for a sign a portrait of the admiral. The little figure, which many of your older readers will remember as being at the corner of State and Broad Streets, with a quadrant in its hand, is supposed to have been made by Shem Drowne in 1770, when William Williams kept a shop on the premises for the sale of all kinds of mathematical instruments, etc. In 1794, Samuel Thaxter, who married a niece of Williams, succeeded the latter in his business, which from him descended to Samuel Thaxter Cushing. The old admiral wore a suit of grogram, and in some way the name "grog" attached to the liquor which he served out to his men. There were, too, the Black House Tavern, a favorite resort in Prince Street, then known as Black Horse Lane, the Brazen Head in old Cornhill, chiefly memorable as the place where the great fire of 1760 originated, and the Bull Tavern at the lower end of Summer Street, which was one of the oldest buildings in the town when it was demolished, about eighty years ago.

Julien's Restorator stood on the corner of Congress and Milk Streets until taken down in 1824. It was one of the most ancient buildings in the town, so Drake tells us, and was occupied as a private dwelling-house until 1794, when Jean Baptiste Julien opened in it the first public eating-house in Boston, with the distinctive title of "Restorator," a crude attempt to turn the French word restaurant into English. Before Julien's day any place into which one stepped to take a bite was called a "cook shop," and Julien may fairly be said to be the father of such places as Parker's, Young's, the Adams House, etc. Julien, like Louis Philippe, took refuge in America during the Reign of Terror in France. His soups became famous, and he was called the "Prince of Soups." One of his soups now remains to us—the Julien—of which all are so fond. At his death his widow succeeded him, and carried on the business successfully for ten years.

The celebrated Roebuck Tavern was near North Market Street, and here it was that, in 1817, Henry Phillips killed Gaspard Dennegri. The execution, which was on the Neck, drew an immense number of spectators, not one of whom supposed Phillips would be hanged. These two sailors got into an argument while the landlord was preparing some flip of beer, spirits and sugar, and Phillips suddenly seized the iron loggerhead with which the beverage was being made, and with one blow killed his adversary. It was a clear case of manslaughter, and the crowd did not doubt for a moment that a reprieve would arrive. Phillips sang in a loud, clear voice one of the fine old hymns of our ancestors, and in a moment was launched into eternity. My father was an attendant at this execution, and often sang to the family the hymn which Phillips sang.

But the old taverns are now things of the past; yes, there is one left back of the Boston Herald office, with its sanded floor and bright clay pipes, the resort of the old Scotch and English gardeners, who meet to talk over the events in their line of life, just the same as Sam Adams, Paul Revere and the old patriots met at the Green Dragon or Sun Tavern, to talk over the doings of the Sons of Liberty; and if one will walk quietly into the "Bell-in-Hand" to-day, he will probably get as good an idea of what preceded the modern hotel as if he had sat there in colonial times, in cocked hat and knee breeches. Applying to the "Bell-in-Hand" the words of a well-known writer, there is, perhaps, no better illustration in Boston of the old English Coffee House, such as Dickens describes and such as travelers may still see in provincial towns in England. You enter and pass into a very dingy and low-studded room, with low, square windows, admitting but little light and completely walled in, as it were, by the tall surroundings. Although there are no longer the old colonial chairs in our "Bell-in-Hand," there is an ancient spell about the place, and one can easily imagine, if the frequenters only had wigs and three-cornered hats, that they might be discussing the Boston Massacre or the destruction of the Tea in Boston Harbor. But new times and new ideas and new things have given place to the subjects that were discussed by the "old cocked-hats" of revolutionary days, of whom Major Melville was the latest specimen. What a deal of enjoyment those old fellows must have got out of life, and what a power they were for their country's good!

Another relic of the last century is now lying at the Charlestown Navy Yard, the old frigate "Constitution," built by Edmund

Hart, a Boston boy. Her fame is a part of the nation's history, and her centennial was celebrated in 1897. She is the only living link between the old navy and the new, and the prayer of every American should be, "Heaven save her from despoiling hands!"

The first block of houses erected in Boston was the range called "Tontine" in Franklin Place, now Franklin Street, on which there is not now a single residence, which up to 1792 had been a quagmire, until it was drained and laid out by its owner, Joseph Barrell, who was the owner of a summer residence, afterwards the McLean Asylum for the Insane, at Somerville. In the area of this plot of ground was an urn to the memory of Dr. Benjamin Franklin.

The second row of buildings erected in the town was on the west side of Court Street in 1800, between Howard Street and Bowdoin Square. South Row, near the Old South Church, was built about the same time; Hamilton Place, opposite Park Street Church, was made in 1806; and Bumstead Place shortly after. Pinckney Street, Hancock and Myrtle Streets, and the whole extent of Mount Vernon Street were a dreary waste in 1799, on which only three decent houses were to be seen, but began in the same year to be covered with rows of handsom and fashionable residences. Beacon Hill and all the hills west of it were leveled, and the earth taken out and carried down to fill up the mill pond where now stands the northern depot.

No paper bearing upon the old town of Boston would be in any way worth attention without at least an allusion to the Tea Party which was given on Griffin's Wharf on December 16, 1773, or to the Boston Massacre, which took place on State Street in front of the Merchants Bank on March 5, 1770. The last event was undoubtedly the work of a mob whose bad feelings were engendered by the previous hasty action of a few British soldiers toward the townsmen, who were inflamed by their acts. When the soldiers who had fired upon the townsmen were brought to trial they were defended by John Adams and Josiah Quincy, the patriots, showing conclusively there was no political significance to the affair. The throwing overboard of the tea in 1773 was a different matter, for which there was a good and sufficient reason —"no taxation without representation." Dr. Franklin, then in London, wrote home that "the British ministry believe that 3 d. a pound upon tea of which one does not drink ten pounds a year is sufficient to overcome all the patriotism of an American." Bancroft, in his history of the United States, says that the destruc-

tion of the tea in Boston Harbor in December, 1773, "merits a more thorough and particular consideration than it has yet received." Without going into a detailed history of the event, let me say that it was one of the ante-revolutionary happenings that have passed into the history of our country, and was participated in by a body of patriots composed of such men as Samuel Adams, Joseph Warren, Paul Revere and other Sons of Liberty of the day. Joseph Warren was a leader in this affair, which had been discussed at the meetings of the Sons of Liberty in the old Green Dragon Tavern; and there is every reason to believe that John Hancock, Thomas Melville, the last of the cocked-hats, Joseph Webb and Henry Purkett, and other personal friends of the hero of Bunker Hill, were at least cognizant of, if they did not have a hand in it. It was this act of the Bostonians which brought King George III. to a decision that America must be subdued by force of arms.

Prior to the Revolution, before the days of vaccination, we are told that it was a custom to hold smallpox parties, at which the guests were inoculated and were shut up for a time from the world. In a letter dated July 8, 1776, is the following account of an invitation to one:

"Mr. Storer has invited Mrs. Martin to take the smallpox at his house. If Mrs. Wentworth desires to get rid of her fears in the same way we will accommodate her the best way we can. I've several friends that I've invited and none of them will be more welcome than Mrs. W."

The praises of our beautiful Common, as it has been called almost from time immemorial, have been sung over and over again. The stranger, coming to us from a distance, does not think his pilgrimage complete until he has taken in this wonderful spot, with its ancient elms and charming bit of water. To the native born, also, the Common has its wonderful attractions; one saunters over its paths on a warm summer day in the shade of its overhanging trees, solacing himself with the reflection that the spot was dedicated in good old colonial times to the service of the people as their training-ground and pasture-field, from which chrysalis state it has blossomed forth into as near perfection as land and water can be made—a park so elegant in its loveliness that it has no compeer in this or any other country,—and it is not an infrequent remark to hear from the returned traveler, "I long to have a sight of old Boston Common."

But the Common has not always had a pleasant history. The

Great Elm, which was blown down in 1860, the product of our indigenous forests, had attained a great age; it was undoubtedly standing when the Puritans landed; it was more for its beautiful proportion and graceful limbs, and for the associations with its history, than for its age and size, that it attained notoriety. I can well remember the feeling of the community when the news spread through the city that the old elm was blown down. It seemed as if the event was a personal affliction.

Notwithstanding its beauty and grace, its largest limb was put to an ignoble purpose, for it was upon it that the executions of early days were performed. Here it was that Mary Dyer, the friend of the celebrated Ann Hutchinson, met her fate, after mounting the ladder for the second time; and under the leafy folds of the great tree Woodbridge met his death in a duel with his, until then, friend Phillips—two youths, hardly of age, who came to high words in the Royal Exchange Tavern on King Street.

Another eminent man in his day was John Hull. He united with the First Church under Rev. John Norton in 1648. He became commander of the Ancient and Honorable Artillery Company in 1671, and was a magistrate of the colony for many years. He, with Edward Rawson and a score of others, seceded from the First Church in 1669, and founded the Third or Old South Church on the corner of Milk Street and Washington Street. The first building lasted about sixty years, when a new church was erected, the first service in which was held in 1735; the first sermon was preached by Rev. Joseph Sewall, the son of Judge Samuel Sewall, who married the daughter of John Hull. Richard Grant White, the Shakespearian scholar, said of this structure that it was the perfect model of a New England meeting-house of the highest style in the olden time; nothing more light and graceful can be found unless in the finest Gothic work. It is not a copy nor an imitation of anything else, but the conception of a Yankee "architect."

John Hull became the mint master of the colony and so continued until 1680, a period of more than thirty years. For his services he received one shilling in every twenty that he coined, and these were the well-known pine-tree shillings, now so valuable for their rarity and antiquity. It is a story that Charles II. became angry with the Massachusetts Bay Colony for invading his prerogative of coining money, to which Sir Thomas Temple answered that the tree on the shilling was "the royal oak which preserved your Majesty's life," at which the king was pleased.

Hawthorne, in his story for children of "Grandfather's Chair," no doubt familiar to you all, has immortalized a legend that when John Hull's daughter Hannah was married he gave her weight in pine-tree shillings as a dower. As the young lady weighed 125 pounds, which came to 1,500 ounces, she must have received 10,000 shillings, or $2,500, as her marriage portion. John Hull died in 1683, and was buried, with many other ancient worthies who have been mentioned, in the Old Granary Burying-Ground.

To digress a little and go back to some of the old records of the early days of the town, to show our ancestor's idea of justice combined with a grim sense of humor, it is stated that in 1640 one Edward Palmer was hired to build a pair of stocks in which vagrants and transgressors were to be put for punishment; on being adjudged as asking too great a price for them he was sentenced to be put in them for one hour, and thus he became the first to try his own work. Josias Plastow, for stealing four baskets of corn from the Indians, was sentenced to return eight baskets, to be fined five pounds, and be simply called "Josias," without the "Mr.," in future. In 1649 it was ordered that no person should play at shuffle-board or bowling, under a heavy penalty. In 1652 Richard Woody was admitted an inhabitant of the town on condition that he should not be offensive by his trade, but what his trade was will never be known, for the records are silent about it. Samuel Lovell was admonished to take heed of light carriage; so was Catherine Cornish—a light-o'-love of that day. John Wedgewood was set in the stocks for being in company with drunkards, but nothing is said of any punishment being inflicted on the drinkers. Nicholas Knoop was fined five pounds for taking on himself to cure the scurvy with a water of no value, which he sold at a dear price. What a pity that our modern quacks could not be similarly treated!

But the old town went on prospering, and in the early part of the nineteenth century began to be what it now is—one of the loveliest spots on the continent, with beautiful surroundings beyond what any other city can boast of possessing. The iron heel of commerce and the march of improvement have gone on treading out the old and bringing in a new order of things, appealing in their results not only to the citizen but the stranger as one of the beautiful places worked out through the instrumentality of man in His own good time.

BENJAMIN F. STEVENS.

*THE CHESAPEAKE AND SHANNON, JUNE 1, 1813.**

"Truth is always brought to light by time and reflection."—TACITUS.

MANY accounts of the action between these frigates, sixty-six years ago, have been written, and it may seem superfluous to add another; but all are more or less tinged with the partisan feelings of their writers. Notably have the historians, Cooper, on the American, and James and Brenton, on the English side, given versions of it based upon the official reports, which are now known to be inaccurate. The most carefully collated and impartial account I have found is in "The Battles of the United States by Sea and Land," by H. B. Dawson, who is careful to cite his numerous authorities. He does not, however relate the graphic incidents of the fight, many of which are only found in the "Life of Captain Broke," since published.

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*Reprinted from first series of UNITED SERVICE.

†I would state, to avoid frequent references, in preparing this paper the following authorities have been examined and freely used, when required, viz.:

British.—Brighton's Memoirs of Admiral Broke, 1866; Marshall's Naval Biography, vol. iii., 1824; United Service Journal, vol. xxxvi., 1841; British Naval Chronicle, vol. xxxiii., 1815; East Anglican Magazine, 1814; New Navy List, 1840,—all containing biographies of Broke; James's Naval Occurrences; James's Naval History, 1837; Brenton's Naval History, 1823; Yonge's History British Navy, 1866; Nicholas's History Royal Marines, 1845; Allen's Battles of the British Navy, 1868; John's Calendar of Victory, 1860; Douglas's Naval Gunnery, 1829; Adams's Famous Ships, 1870; Ralfe's Naval Chronology, vol. iii., 1820; Campbell's Lives of the Admirals, vol. viii., 1817; The Ship, by Francis Steinitz, 1849; Broke's Official Report, 1813.

American.—Cooper's Naval History, vol. iii., 1839; Clark's Naval History, vol. i., 1814; Naval Temple, 1816; Naval Monuments, 1816; United States Naval Chronicle, 1824; Frost's Book of the Navy, 1842; Frost's Lives of the Commodores, 1845; Aldrich's History United States Marines, 1875; Washington Irving's Life of Lawrence; Analectic Magazine, vol. ii.; Pamphlet account of the Engagement; Story's Eulogy on Lawrence and Ludlow; Duyckinck's Portrait Gallery; Thomson's Sketches of the War; *The War*, newspaper, vol. ii.; Naval Court of Inquiry on the Loss of the Chesapeake and Court-Martial on Lieutenant Cox; Lieutenant Budd's Official Report of the Action; Breckenridge's History of the War; Auchineck's History; Perkins's History; Emmon's Statistical History United States Navy, 1853; Dawson's Battles of the United States, vol. ii., 1858; Appendix to Niles's Life of Commodore O. H. Perry, 1821.

No action between single ships of the same force ever had such moral effect, or was the cause of so much rejoicing in England, as that between these frigates. The action is not to be judged by their tonnage or weights of metal,—for a single gun from one of England's ironclads of to-day would throw more metal than was projected by a whole broadside from one, or the united broadsides of both of these vessels,— but rather by the consequences, real or supposed, derived from the victory, on the one hand, and the defeat on the other.

The results of the previous actions between the Constitution and Guerriere, Wasp and Frolic, United States and Macedonian, Constitution and Java, and, last of all, of the gallant Lawrence of this conflict, three months earlier, between the Hornet and Peacock, had shaken the belief of the British nation in the invincibility of its "wooden walls," though they had derided our frigates as "fir-built boxes of guns,"* and their naval authorities, assured of easy victories, had avowedly sent to sea vessels of inferior tonnage and armament, in order that their tars might reap honor and the largest reward in prize-money as captors of a superior force. Having to confess to these defeats† on an element where they had prided themselves on being invincible, they now asserted our fir-built frigates were 74's in disguise, and soothed their mortified pride by asserting, our ships were manned by Englishmen, who fought desperately because with halters around their necks.

Here, in this action between the Chesapeake and Shannon, where the ships were evenly matched, or, as they even claimed, our ship was of greater tonnage, heavier armament, and better manned, the tide of victory was turned from us, and the naval supremacy of Great Britain, as "Ruler of the Seas," sustained and restored.

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*In 1842, Sir William Symonds, Surveyor-General of the Royal Navy, wrote, in a report on ship timber, "Larch timber is at present in the highest estimation for ship-building purposes, both from its buoyancy and well-known durability."

† * * * * * *

"And Britain with amazement saw
These vain marauders give the law
Upon the seas unchecked.

"She saw her Guerriere's colors torn,
The Frolic's too,—and heard to mourn
Her Peacock's drowning knell;
But most the Macedonia's fate
She wept, and scarce less great
Her grief when Java fell." —*English Song.*

The announcement of the victory was received in the House of Commons in an unprecedented manner, with cheers and acclamations, rendered more remarkable from immediately following the severe remarks of Lord Cochrane on the mal-administration of naval affairs, and his citing the previous defeats as substantiating his remarks. It also elicited from the commander-in-chief the remark that "it had restored the renown of the British navy, whose trident had been struck from its hand by the previous American victories." Could greater compliments have been paid our naval successes? The gallant Broke was created a baronet of the United Kingdom, and given as a crest, in augmentation of his family arms, "*a naval crown,*" issuant from it a dexter arm embowed, encircled by a wreath of laurel, the hand grasping a trident erect, with this motto: "Sœvumque tridentem servamus."

Of the sea-fights in the time of the Commonwealth, it is said by a British historian "that Blake, who was victor, gained not more than Tromp, who was vanquished." The remark is true with respect to the engagement of the Chesapeake and Shannon." The perseverance of Broke was equaled by the promptness of Lawrence. He went out to meet the Shannon as soon as he ascertained there was no other vessel to meet, and his foe, by his action, was bidding him defiance and challenging him to battle. His going into action was as gallant as his reception. He was wounded at the first gun of the enemy, and again, fatally, in the groin, as his ship was being boarded, and fell with all his officers killed or wounded around him, and expired with the watch-words that have been a rallying cry for our navy ever since, "*Don't give up the ship,*" on his lips.

The shortness of the engagement was only paralleled by his own victory over the Peacock in eleven minutes, "by his own watch;" but the bloody nature of it was not paralleled by any single or general sea-fight of the war. The Chesapeake's loss alone, in killed and wounded, was greater than either of our squadrons suffered in gaining their victories on Lakes Erie and Champlain, and she had nearly twice as many killed, and a total of nearly as many killed and wounded as had Farragut, in the passage of the forts below New Orleans, in 1862. On the Chesapeake, 61 were killed or died of their wounds, and 85 otherwise wounded. In Farragut's fleet, 35 were killed and 135 wounded. In these two ships, in the brief space of fifteen minutes, 252, or about one-third of their united complements, were killed or wounded. In the general engagement of the British fleet off Cape St. Vincent, the whole loss was but 296, and in the more recent battle of Navarino, only 286, distributed among twelve vessels, three of which

were ships of the line. The "Naval Monument" says, "The annals of the world may in vain be challenged to furnish another instance of so short an engagement, and on each side such tremendous execution." The whole engagement was without maneuvering, and was begun, fought, and finished within hailing distance. The English contended, after the victory, that the Chesapeake was the superior in tonnage, battery, and crew, while the Americans asserted the Shannon had the advantage in battery and in the number and discipline of her crew. The ships were in fact very evenly matched, and the result of the action was due to the accidents of a naval combat, such as the extraordinary loss of officers on board the Chesapeake at the beginning of the fight, her accidentally fouling the Shannon, and perhaps the more effective gunnery of the latter ship, rather than to any superiority in force or bravery of conduct.* The few additional tons of the Chesapeake in no way helped to the result. Captain Broke's letter of challenge shows that the batteries of the two ships were precisely the same, save that the odd or forty-ninth gun of the Chesapeake was an 18-pounder, and the Shannon's a light boat-gun; but in reading the English accounts of the action we find he had *two* boat-guns. The difference in armament, if any, was more than compensated for by the extra weight of the English shot, their 18-pounder shot being 1 pound 14 ounces, and the 32-pounder shot, 3 pounds heavier than the American. With regard to crews, the Shannon had undoubtedly the advantage of a long-continued exercise and discipline. Broke has stated his crew as 330, exclusive of officers and marines, which would bring the Shannon's complement up to 380 or 390. The regularly authorized crew of the Chesapeake at that time was 340, also exclusive of officers and marines, which would make her complement 390 or 400. The English claimed she had 440 on board, and the American accounts state 391, which was probably near the correct number. Two muster-rolls were found on board the Chesapeake, one of which, written up to the morning of the action, contained 391 names. There was therefore little or no advantage in point of numbers, and if any, it was swept away by the first guns of the enemy. The assertion that the Shannon had extra men from La Hogue, and that the Chesapeake had additional men from the Constitution, is without foundation. Captain Broke denies the first, and Captain Lawrence had no communication

*Even so prejudiced a writer as James acknowledges the Chesapeake was not finally subdued by superiority of gunnery, which was the Shannon's forte, but by boarding, and says, "Captain Lawrence and his brave offiers deserved a better crew than the Chesapeake."

with the shore after he had resolved to fight the Shannon. A brief history of the vessels of this conflict, and sketches of their commanders, will not be amiss as a prelude to the fight.

The Chesapeake, 36, was launched at Norfolk, Virginia, October 2, 1799. She was 1,135 tons by English, and 1,244 tons by American measurement, and was completed in 265 working days, not more than twenty carpenters at a time being employed in her construction. She was 161 feet long by 42 feet beam, and cost, including her first outfit, $220,678. She was therefore fourteen years old at the time of the action. She performed a cruise in the West Indies in 1800; in the Mediterranean in 1802-3; sailed again for the Mediterranean in 1807, when occurred the unfortunate affair with the Leopard; and subsequently cruised on our coast. She was esteemed by sailors an unlucky ship after her affair with the Leopard, and it was always difficult to get a crew or her. In the quasi French war she made prize of only one small vessel, and in the war of 1812 of only four merchantmen. She sailed from Boston December 13, 1812, and returned to the same port, under command of Captain Samuel Evans, April 9, 1813. Her engagement with the Shannon was her first, as it was also her last, fight. She mounted at that time, in broadside, fourteen 18-pounders on her main-deck, and ten 32-pounder carronades on her spar-deck, and, besides, an 18-pounder on her forecastle,—forty-nine guns in all, —making her total broadside 590 pounds. Her guns, it is stated, bore fanciful names,—by one account inscribed on small squares of copper, by another painted in large white letters, over the ports,—as follows: On the main-deck, "Brother Jonathan," "True Blue," "Yankee Protection," "Putnam," "Raging Eagle," "Viper," "General Warren," "Mad Anthony," "America," "Washington," "Liberty Forever," "Dreadnaught," "Defiance," and "Liberty or Death,"—14. On the spar-deck, "The United Tars," "Jumping Billy," "Rattler," "Bull-Dog," "Spitfire," "Nancy Dawson," "Revenge," "Bunker Hill," "Pocahontas," "Towser," and "Wilful Murder,"—11. These names, which are obtained from a British memorandum, show the guns were named by pairs, and that the forecastle 18-pounder was called "United Tars."

Captain Lawrence had taken command of the Chesapeake only ten days previous to the fight, when nearly ready for sea, with great reluctance relieving Captain Evans, who was sick. Only four days before the battle he wrote Captain Biddle that he had been hoping to be relieved by Captain Stewart, but had given up all hopes, and should go to sea on Sunday if he saw a chance of getting out clear of the Shannon and Tenedos. Prior to Captain Lawrence's arrival, her

second lieutenant, Mr. Thompson, had obtained leave of absence, and after his arrival Mr. Nicholson and Mr. Pierce, acting lieutenants, were detached on account of ill health, and the third day preceding the battle, the first lieutenant, Mr. Page, was sent on shore seized with lung fever, of which he died three days after the action, aged twenty-eight. Captain Lawrence deplored the necessity of going to sea without him. Lieutenant Ludlow, her third officer on the last cruise, and aged "scarce twenty-one, a blooming Euryalus," succeeded Mr. Page as first lieutenant, a station in which he had never acted. Lieutenant Budd, the second lieutenant, had less experience, and the two remaining lieutenants were midshipmen with acting appointments, who had just reported. The assignment of new officers and new duties to officers, however brave and skilful, was an evident disadvantage, heightened by the fact that those who left had enlisted the crew and been with them on the former five months' cruise. Captain Lawrence was so well aware of this that he declared he would rather fight the Shannon and Tenedos in succession, after being at sea twenty days, than to meet one of them immediately on weighing anchor.

The crew of the Chesapeake were enlisted the preceding autumn for two years, and had generally been in her the last five months, but vacancies in her complement from absence in prizes and casualties of service had been filled since her arrival in port. She had an unusual proportion of landsmen, and the motley character of the crew is shown by the insolent, not to say mutinous, behavior of a "Portuguese boatswain's mate," and the fact that both Captain Broke and Lieutenant Wallis state that after the action thirty-six British subjects, deserters from H. M. Navy, whose birthplaces and names and the names of the ships they deserted from were known, were found on board. Twenty-six of these enlisted in the Royal Navy on their arrival at Halifax, and five "miserable traitors," whose names are given us,—T. Arthur, H. Simpson, F. Pierce, T. Jones, and C. Williams,—were taken to England and tried, four of whom were flogged around the fleet, and the fifth hung, November 18, 1813. Among the wounded also were some who surprised the English surgeon by asking him if he did not remember them as shipmates, having received their discharge when the war commenced by claiming American citizenship.

The Chesapeake after her capture proved of little service to the Royal Navy. She was brought to England and purchased by the government for £21,314 11s. 11½d. (it is best to be accurate), and in 1814-15 was put in commission. In 1816 she was placed in ordinary, and in 1820 sold at Portsmouth to Mr. Holmes for £500, who cleared £1,000 profit. This reminds us of similar depreciations in value ex-

perienced by sales of vessels in our own navy. Mr. Holmes broke the vessel up, took several tons of copper from her, and disposed of her timbers for building purposes. Much of the wood was employed in building houses in Portsmouth, but a large portion was sold to John Prior, a miller, for nearly £200, who pulled down his old mill at Wickham, nine miles from Portsmouth, and constructed a new one with this timber, which he found admirably adapted for the purpose. The deck-timbers, "32 feet long and 18 inches square," were placed unaltered horizontally in the mill, and the purloins of the deck, about 12 feet long, served without alteration for joists. The mill in 1864 was standing just as erected in 1820, and was likely to last hundreds of yars (pretty well for a "fir-built ship"). It is now owned by a Mr. Godrick. The rector of Kenstown, who recently visited it, says, "The beams, joists, and floors are all constructed from the timbers of the Chesapeake. The beams in many places are pock-marked with grape-shot. The mill, armed with many modern appliances, was merrily going, and on every floor the blithe and mealy men were urging their life-sustaining toil;" and he adds, "on one of these planks, on one of these floors, beyond all reasonable doubt, Lawrence fell in the anguish of his mortal wound; on another, if not the same, Watt's head was carried away by a grape-shot; and on others Broke lay ensanguined and his assailants dead. Thus pondering, I stood, and still the busy hum went on. Corn passed beneath the stones, flour poured forth a warm, sustaining element of life, and merry millers passed around their kindly smile and blithesome jest."

In 1840, Sir William Symonds ordered a colossal bust of Sir P. B. V. Broke to be carved and affixed to the head of a frigate Chesapeake, then building. Before her launch she was converted into a screw frigate of fifty-one guns, but she has disappeared from the navy list, and her name is not now represented in the Royal Navy.

The Shannon, 38, was built at Brindsley's yard, Chatham, in 1806. Two ships of the same name had previously been lost. One, a 32-gun frigate, constructed in 1796, and wrecked in 1800; another, a 36-gun frigate, launched in 1803, and the same year run aground in a gale under the batteries near Cape La Hogue. The third, the Shannon of the present narrative was "a plain, massive, and effective ship, strictly of her class," of 1066 tons, and, according to Captain Broke's letter of challenge, mounting "24 guns upon her broadside, and one light boat-gun, 18-pounders, on her main-deck and 32-pounder carronades on her quarter-deck and forecastle, and manned by a complement of 330 men and boys, including 30 seamen, boys and passengers who were taken out of recaptured vessels lately."

The Shannon was commissioned in June, 1806, by Captain Broke, and from the day he entered upon her command he was not contented to trust only to the undoubted pluck of English sailors, says his eulogizer, but by constant exercise and steady discipline he rendered them effective gunners and skillful swordsmen.

In 1807 he was ordered, with the Meleager in company, to protect the Greenland whale-fishery. On this cruise the ship pierced beyond 80° N. latitude. The Shannon was next attached to the Channel fleet, and constantly employed in blockading ports in the bay of Biscay; and, says an English writer, "When the American war was declared her discipline was perfect, and her guns were as rifles in the hands of her crew, and this crew was not to be weakened, while an American frigate existed on the ocean." It was Captain Broke's practice to continue to throw empty provision casks overboard in strong winds, and notwithstanding the motion of the sea, the men were sure to strike them; and to cut down the flag-staff at point-blank range was not considered particularly good practice if it was steady. So they could actually shoot flying. The guns and carronades of the Shannon had, what was then unusual, dispart sights and a wooden quadrant for degrees of elevation. Besides these, at every port a compass was inscribed, by cutting grooves in the deck and filling them up with white lead. The effect of this precaution and exercise was shown in the action with the Chesapeake. Several of the officers and most of the crew had been with Captain Broke during the whole seven years of his command, and been, so to speak, educated by him, while every plank in the ship was familiar to them. Broke's biographer says, "The Shannon crew, for more than seven years, in fair weather and in foul, in calms and storm, in the excitement of the chase and the regularity, the monotony perhaps sometimes, of the the morning and evening exercise, had learned to know each other thoroughly. Discipline was paramount, and consequently every duty was quietly, noiselessly, and effectually discharged." The writer of a notice of Sir Philip Broke in the *United Service* journal, at the time of his decease, says, "It should not be forgotten that the present system of gunnery in the Royal Navy sprung from the Shannon's; borne on at last upon the tide of popular favor, from the surprising effects it had produced at the capture of the Chesapeake."

After the action the Shannon was but little in active service, and in 1859 she was broken up. Her figure-head, a colossal female bust, painted white, ornamented with a necklace of gilded roundlets, and surmounted by a star taken from the Chesapeake's stern, now ornaments a glazed arcade at Broke Hall, and some of her timbers

have been constructed into an elegant and lofty pair of gates leading to the grounds. The relics were presented to Sir P. B. V. Broke's surviving son by the British Admiralty.

Her name was continued on the list of the Royal Navy by a stately steam-frigate of 35 guns and 2,665 tons, and is now represented by an iron-plated steamship of 3,095 tons, mounting 9 guns, and the fifth of her name, built at Pembroke in 1875-76.

Captain Philip Bowes Vere Broke, the commander of the Shannon, was the eldest son of Philip Bowes Broke, and descended from a Sir Richard Broke, Chief Baron of the Exchequer in the reign of Henry VIII., whose ancestor was Adam de Doyle del Brooke, lord of Leighton Cheshire in the reign of Henry III. For over three hundred and fifty years the family have resided at Broke Hall, Suffolk, England; and for four hundred years previous at Leighton. A memorial window and brass placed in Nacton Church, in 1863, by Rear-Admiral Sir George Broke Middleton, Bart., Captain Broke's son and successor to the baronetcy (he having assumed his maternal name "Middleton"), records the names of his ancestors who have been buried in the vault beneath the church since 1545, and is dedicated to them, "In gratitude to God for having granted them the peaceful enjoyment of the Broke Hall estate for three hundred and forty years."

Broke Hall was built 1526. Captain Broke was born under its ancestral roof, Sept. 9, 1776, two months after our Declaration of Independence, and at the time of the action was not quite thirty-seven years old. He early showed a predilection for the sea, and when twelve years old entered the naval academy at Portsmouth. He commenced his naval career as a midshipman June 25, 1792; was promoted a lieutenant in 1797, a commander in 1799, and made a post-captain Feb. 14, 1801, after less than nine years' service, and when about twenty-four years of age. He had, however, no command until 1805, when he was commissioned to the Druid, 32. He continued to command the Druid until June, 1806, when he was appointed to the Shannon, 38, just launched, and continued in command of her until after the capture of the Chesapeake, in 1813, and her return to England. On her arrival there the Shannon as put out of commission, as "unfit for further service," and "Sir Philip" was offered the New Castle, 60, a new ship, "built to match the large American vessels, misnamed frigates," but his wounds would not permit his accepting active service. November 2 following the action Captain Broke was created a baronet of Great Britain, "in consideration of the distinguished zeal, courage, and intrepidity displayed by him in his brilliant action with

the Chesapeake, and February, 1814, he received the royal permission to bear the crest of honorable augmentation to the family arms and motto, already stated. In 1815 he was made a K.C.B. Numerous honors and compliments were showered upon him. The city of London voted him its thanks, the freedom of the city, and a sword. Ipswich, its thanks. The gentry of Suffolk, his native county, subscribed £730 for a plateau of silver. The Free and Easy Club of Ipswich, 100 guineas for a silver cup. The underwriters of Halifax presented him with an address and a piece of plate valued at £100, and he was granted a gold medal and clasp. At the anniversary of the battle of Salamanca, August 4, 1813, Lord Wellington's toast was. "Captain Broke and the Shannon." On the arrival of the news of the victory at Plymouth the illuminations were general, and the toast of the day was, "An *English Broke,* and an *Irish* river."

Sir Philip was never afloat again after his return to England in the Shannon. On the 1st of August following the action he wrote to his wife that Captain Brenton had drawn him two pretty sketches of the action, which, though she did not love such pictures of fire and terror, represented "one of the happiest moments of his life, as affording him the privilege of retiring with honor, and conscious of having earned his liberty." And again on the 6th of August he wrote her his capture was of more value to him than all the wealth of the world, as it enabled him to retire happily and without reproach. He enjoyed a life of domestic ease, and never fully recovered from the effects of his wounds, which, in 1840, were aggravated by an accident. So he continued in his retirement, not rich, but with a competency, sending his two sons into the service. In 1830 he was promoted a rear-admiral, and at his death, June 3, 1841, at the age of sixty-five, had attained the rank of a retired "rear-admiral of the Red."

Captain James Lawrence, the commander of the Chesapeake, the youngest son of John Lawrence, Esq., counselor-at-law, was born in Burlington, New Jersey, October 1, 1781, being therefore, at the time of the action, less than thirty-two years of age. He early showed his predilection for a sea-life, which was opposed by his father, who placed him in the law office of his brother John. After the death of his father, and when about seventeen years of age, he entered the U. S. Navy as a midshipman, September, 1798, and had been nearly sixteen years in the service, *with one furlough of six weeks,* when he received his death-wound. In 1800 he was an acting lieutenant on board the Adams, but in consequence of the reduction of the navy he was one of Commodore Preble's "good boys." For a time he was he as one of Commodore Preble's "good boys." For a time he was

the first lieutenant and temporarily commander of the Enterprise, and assisted in the destruction of the Philadelphia, under Decatur. He was afterwards removed to the John Adams, and returned to the United States with Preble, but returned, in command of gunboat No. 6, to the Mediterranean, serving nearly five years continuously against the Turks. After that he was constantly engaged in the Constitution as first lieutenant, and in the Vixen, Wasp, Argus, and Hornet as commander. We commend this record of sea-service to grumblers of to-day over the short and broken cruises they are called upon to perform to the interruption of their pleasanter service on shore stations.

In his remonstrance at the promotion of the gallant Morris over him, Lawrence contrived with delicacy and spirit at once to save the feelings of a brother-officer and to vindicate his own.

On the preceding March, in command of the Hornet, he captured the Peacock, of equal force, in the same or less time than the Chesapeake was captured. Himself stated that the interval between the firing of the first shot and the Peacock's hoisting her flag union down was eleven minutes by his watch, but as his clerk had got it down "fifteen," he thought the time short enough. The Halifax papers said "that a vessel moored for the purpose of experiment could not have been sunk sooner." It is to his honor that more men were lost on board the Hornet in saving than in conquering the enemy. One man only was killed in the battle on board the Hornet, but three of her crew went down in attempting to save the vanquished from the sinking vessel, and Lawrence took under his particular care a youth whose father was killed on board the Peacock, leaving him an orphan. In him

"The foe felt the paw of the lion,
But the battle once ended, the heart of a lamb."

Commodore Decatur, with whom Lawrence had served much, when asked "whether his intrinsic merits as an officer justified the enthusiastic veneration in which the nation held his memory?" answered, "Yes, sir, it did; and the fellow died as well as he lived; but it is a part of a soldier's life to die well. He had no talk; but he inspired all about him with ardor; he always saw the best thing to be done; he knew the best way to do it; and had no more dodge in him than the mainmast."

Cooper says, "Lawrence was a man of noble stature and fine personal appearance. He had the air and manners of a gentleman-like sailor, and was much beloved by his friends. He was quick and im-

petuous in feelings, and sometimes manifested it on the quarter-deck; but in all critical situations his coolness was remarkable. He was a perfect man-of-war's-man, an excellent quarter-deck seaman, handling his vessel not only skillfully, but with all the style of the profession. In his feelings and sentiments he was chivalrous, generous, and just. All his younger officers became singularly attached to him. Indeed, his interest in the midshipmen was proverbial, and on one occasion, when the midshipmen of a squadron gave a dinner to Commodore Rodgers, for some reason it was proposed not to ask any lieutenants. 'What, not Mr. Lawrence!' cried one. Mr. Lawrence was excepted by acclamation, and was, in fact, the only lieutenant present. His humanity and kindness of heart were as conspicuous as his courage, and he was never known to say rude things to his inferiors, for, while his manner had all a seaman's frankness, and sometimes a superior's impatience, it was tempered by the qualities of a gentleman. His eyes filled with tears while inflicting necessary [corporal] punishment, nor was it common to find another who had so strong a reluctance to use his authority in this mode as himself. . . . His deportment during the battle in which he fell was noble and inspiring, and the loss of the ship may be imputed to his death. Even his enemies eulogized the manner in which he carried his ship into action."

An aged friend of mine,* now eighty-five years old, informs me that the day before the battle Captain Lawrence, accompanied by a lieutenant, came into the shop where he was an apprentice, the lieutenant having a minature of Captain L. he wished mounted, leaving to Captain L. the selection of the frame. "During the conversation Captain L. was leaning his tall, manly figure over the show-case." The miniature was left to be called for to-morrow, but the battle was fought the next day, and they never returned. My friend, describing Lawrence's personal appearance as he remembers it, says, "He was tall, a little under six feet, and broad across the shoulders, with a handsome, manly face and dark hair, with side-whiskers combed up, and shaved under the ears, as was then the style. His proportions were good and movements graceful, and he carried himself as one born to command; and, in fact, he was a man made up and finished such as we like to look upon."

Such were the antecedents and characters of the two commanders about to engage in mortal combat.†

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*Mr. James Todd, of Portland, Maine.

†In 1823 the widow of Lawrence petitioned for a continuance of her pension of $50 a month, which had expired under the law, and was refused it. The Com-

THE BATTLE.

On the 21st of March H. B. M. frigate Shannon, Captain Broke, accompanied by the Tenedos, Captain Hyde Parker, sailed from Halifax for a cruise in Boston Bay. On the 2d of April the two frigates reconnoitered the harbor of Boston and saw the President and Congress, the latter with her sails bent and top-gallant-yards across ready for sea, and the former nearly so. The Constitution was at the time undergoing a large repair, and having her decks lowered to render her more snug, and give her a smaller and more inviting appearance. The British frigates took station to intercept the American frigates should they run out. Meanwhile, the Chesapeake managed to elude their vigilance, and run in on the 18th of April, and on the 1st of May the Congress and President, availing themselves of a shift of the wind and foggy weather, put to sea. On the 23d of May the Curlew joined the blockading frigates, and was immediately sent with prisoners and dispatches to Halifax. Fully aware the Chesapeake would not attempt to cope with *two* frigates, Captain Broke on the 25th of May ordered the Tenedos on a cruise, to rejoin him off Boston on the 14th of June, unless otherwise ordered by a superior officer, and early Tuesday morning, the 1st of June, wrote and dispatched his famous letter of challenge to the commander of the Chesapeake, as appears by his brief pocket-diary.

JUNE 1. Off *Boston*, moderate N.W. W[rote] Lawrence. P.M. Took Chesapeake.

There is no trace of this letter in the Shannon's letter-book, the last entry by the clerk, Mr. Dunn, who fell in the action, bearing date May 31. This letter was intrusted to Captain Slocum, a discharged prisoner who landed at Salem, and mailed it thence to Boston, where it arrived after the battle. The letter, save a fling at Commodore Rodgers for not accepting his verbal challenges, which he may never have received, is frank and manly, and begins thus:

"As the Chesapeake appears now ready for sea, I request you will do me the favor to meet the Shannon with her, ship to ship, to try the fortunes of our respective flags." The Shannon's force is thus described: "The Shannon mounts twenty-four guns upon her broad-

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mittee on Naval Affairs reported "that duly appreciating the merits and bravery of Captain Lawrence, yet they are of opinion that it is inexpedient at the present time to grant her petition, and recommend the petitioner have leave to withdraw her request." A double period of five years, $1,200, was, it would seem, considered ample compensation to the widow and children of Lawrence for his noble self-sacrifice! Another instance of the proverbial ingratitude of republics.

side,—one light boat-gun, 18-pounders on her main-deck, and 32-pound carronades on her quarter-deck and forecastle,—and is manned by a complement of 300 men and boys (a large proportion of the latter), besides 30 seamen, boys and passengers, who were taken out of recaptured vessels lately." "I am thus minute," says Broke, "because a report has prevailed in some of the Boston papers that we had 150 men additional lent us from La Hogue, which really never was the case." After fixing the place of meeting, and providing against interruption, Captain Broke concludes by saying, "I entreat you, sir, not to imagine that I am urged by mere personal vanity to this wish of meeting the Chesapeake, or that I depend wholly upon your personal ambition for your acceding to this invitation. We have both nobler motives. You will feel it as a compliment if I say that the result of our meeting may be the most grateful service I can render to my country; and I doubt not that you, equally confident of success, will feel convinced that it is only by repeated triumphs in *even combats* that your little navy can now hope to console your country for the loss of trade it can no longer protect. Favor me with a speedy reply. We are short of provisions and water, and cannot stay long here." Had this letter been received, there is little doubt Lawrence would have waited to get his ship in better order before proceeding to the combat.

Shortly after dispatching this letter, the Shannon, with colors flying, stood close into Boston light-house, and there lay to, inviting the fight. The Chesapeake was seen from her at anchor in President Roads, with royal yards across, and apparently ready for sea; indeed, Captain Lawrence had imperative orders to proceed to sea without delay. Presently she loosed her foretop-sail, then all her top-sails, and sheeted them home, the wind, a light breeze from W. by N., being perfectly fair. The preceding day had been rainy, but it to-day "was one of unclouded summer loveliness." Between twelve and one Captain Broke, from the mast-head of the Shannon, observed the Chesapeake fire a gun, and loose and set top-gallant-sails. She was soon under way and made more sail. While aloft, Captain Broke saw that Captain Slocum's boat had not reached the shore in time for the delivery of his challenge to the commander of the Chesapeake. Spectators, it is said, were collected in every place in and near Boston which commanded a view of the sea, and sail-boats went out from the land to view the combat, but the frigate proceeded to the eastward till lost to the sight of the town.

As the Chesapeake came down, the Shannon filled and stood out from the land under easy sail till four o'clock, when the Chesa-

peake, having hauled up and fired a gun in defiance, the Shannon hauled up also and reefed topsails. Both ships were now about seven miles distant, and again bore away, the Shannon with her foresail hauled up and maintop-sail braced flat and shivering, to allow the Chesapeake to overtake her. The Chesapeake sent down her royal yards, but the Shannon kept hers aloft, thinking the wind might become lighter. About this time Broke addressed his crew in substance as follows: "Shannons! you know from various causes the Americans have lately triumphed on several occasions over the British flag in our frigates. This will not daunt you, since you know the truth that disparity of force was the chief reason. But they have gone further; they have said and have published it in their papers that the English have forgotten the way to fight. You will let them know today there are Englishmen in the Shannon who still know how to fight. *Don't try to dismast her. Fire into her quarters, main-deck into main-deck, quarter-deck into quarter-deck. Kill the men,* and the ship is yours. Don't hit them about the head, for they have steel caps on, but give it them through the body. Don't cheer; go quietly to your quarters. I feel sure you will all do your duty; and remember you have now the blood of hundreds of your countrymen to avenge." Lawrence also addressed his crew in a few words, as was his custom, pointing to the flag and exhorting them to die sooner than see it dishonored, but they have not been preserved. When he had finished his harangue there was a murmuring among the seamen, led by a Portuguese boatswain's mate, that they had not received their prize-money from last cruise. Lawrence directed the purser to give them prize-checks for the amount; and when the ship got within gun-shot distance of the Shannon the seamen voluntarily and heartily cheered.

At a few minutes past five, Boston light bearing west about six leagues, the Shannon again hauled up, with her head to the S. and E., under top-sails, top-gallant-sails, jib, and spanker, having only steerage-way. The Chesapeake came down upon the Shannon's starboard quarter, "Captain Lawrence standing on a gun-slide, fatally conspicuous by the white vest and other habiliments he had assumed." The ship, fresh in dock-yard paint and gay with bunting, having three ensigns flying,—one at the peak, one at the mizzen royal mast-head, and one in the starboard rigging,—while from her main fluttered the captain's coach-whip, and at her fore she carried a large white flag, bearing the motto "SAILORS' RIGHTS AND FREE TRADE." The Shannon, rusty from cruising, bore an old blue ensign at the peak, with her captain's pennant at the main, and a union jack at the fore. As a precaution, however, in case these should be shot away, an ensign was

rolled up and stopped on the main-stay, and another in the main rigging, ready to be loosed, and Lieutenant Watts had placed still another,—a white ensign,—as was his wont, at quarters on the capstan, to be in readiness to hoist on the captured ship. Captain Broke thought the Chesapeake would pass under his stern and engage him upon the port, or lee side, and therefore directed his men to lie down, flat as she passed, to avoid in some degree her raking fire. Had he done so the fate of the action might have been different.* Captain Lawrence, however, either overlooked or waived this advantage, and, pursuing the tactics in which he had been so successful with the Peacock, at 5:40 P. M. gallantly luffed up within half pistol-shot upon the Shannon's starboard quarter. The sails of the Chesapeake came rapidly between the slanting rays of the evening sun and the Shannon, darkening the main-deck ports of the latter, whilst the increasing ripple of the water against her bows as she approached could be distinctly heard at all the guns of the after-battery on the Shannon's silent main-deck. The Shannon's men had received orders to fire their guns on the main-deck as soon as their guns bore on the Chesapeake's second bow port, and to aim principally at her ports. The Shannon's guns were loaded thus: The aftermost main-deck gun with two round-shot and a keg containing one hundred and fifty musket-balls; the next gun with one round and one double-head shot, and so alternately along the broadside. In a moment, the position attained, the Shannon commenced the action by firing the after main-deck gun, and a second afterwards the after-carronade on the quarter-deck, just as the Chesapeake, while rounding to, brought her foremast in a line with the Shannon's mizzen-mast. The Chesapeake discharged her whole broadside in return, which was replied to by the Shannon's guns as fast as the men could level them with precision. The general cannonade lasted only six minutes. It was said at the time of the action, and confirmed by marks made over her main-deck guns, that as near as possible only two and a half broadsides were fired from the Shannon's main-deck.

The effect of the first fire from the Shannon, as witnessed from her tops, was truly withering. "A hurricane of shot, splinters, torn hammocks, cut rigging, and wreck of every kind was hurled like a cloud across the deck. Of 150 men quartered thereon, more than 100 were instantly laid low." By the American account, Sailing-Master White was killed, Lieutenant Ballard mortally wounded, and Captain

*This is an obvious advantage, which, as Sir P. Broke admits, the Chesapeake might have availed of, and it is one which, had it been taken, would most probably have gained some previous advantage.—*Sir Howard Douglas.*

Lawrence struck by a musket-ball in the leg, which inflicted a painful wound. He, however, leaned on the companion-way and continued to command and encourage his men. Lieutenant Broom of the marines and Boatswain Adams were also killed, and three men successively shot down at the helm. From the way she had previously acquired the Chesapeake gradually forged ahead of the Shannon, and, at 5:53 P.M., to prevent this was luffed up a little, when, having her jib-sheet and foretop-sail tye shot away, and foresails disabled, she would not answer her helm, but flew up into the wind, and fell on board the Shannon, the fluke of the latter's waist-anchor, stowed in the main chains, entering the Chesapeake's quarter gallery. She thus became exposed to a most galling raking fire. Lieutenant Wallis, of the Shannon, says, "The cannonading continued *eleven* minutes, when the Chesapeake, which had got before our beam, was taken aback, and making a stern board, dropped into the Shannon just abaft her fore-channels." The shot of the Shannon now had a fair range along the Chesapeake's decks, beating in her stern ports, and sweeping the men from their quarters, and the shot from her foremost guns entering the ports from the manmast aft, did considerable execution. An open cask of musket cartridges, for the use of the marines, standing on the Chesapeake's cabin skylight, caught fire and blew up, adding to the confusion, but doing no injury; the spanker-boom, directly over it, being barely singed. Mr. Stevens, the veteran boatswain of the Shannon, who had fought under Rodney, when employed outside the Shannon in lashing the Chesapeake to her, had his left arm hacked off by repeated sabre-cuts, and as mortally wounded by a musket-ball, and Midshipman Samwell was mortally wounded on the Shannon's forecastle.

At this juncture Captain Lawrence ordered his boarders called away, but the negro bugler had deserted his quarters, and when found was unable from fright to sound his bugle. This occasioned some delay, and a midshipman was sent below to pass the word, but few understood the call. Acting Lieutenant Cox ran on deck at the head of a few of the second boarders, but arrived just in time to receive and carry below his falling commander, fatally wounded in the groin by a musket-ball said to have been fired by Lieutenant Law, of the Shannon's marines. It is asserted that Lieutenant Cox, on mounting the deck, being unacquainted with the crew, joined a party of the enemy through mistake, and was made sensible of his error by their cutting at him with their sabres. Confusion prevailed, and a greater part of the men deserted their quarters and ran below. The Chesapeake by this time had fallen off so that she lay close alongside

the Shannon, the latter's mainmast being in a line with her taffrail. Seeing, as he says, the Chesapeake's men flinching from their guns, and that the ships would quickly separate, Captain Broke threw down his trumpet, and calling out *"Follow me who can,"* dashed on board, followed by Lieutenants Watt and Falkner and about twenty men, stepping from the fore end of the Shannon's gangway hammocks, on the after quarter-deck gun of the Chesapeake, and thence over her hammocks on her quarter-deck. Captain Broke says he did not intend to board personally, but went on board from the impulse of the moment, and as a matter of necessity. When he reached the Chesapeake's quarter-deck, Mr. Livermore, a friend of Captain Lawrence, acting as chaplain, shot at him, and made a cut at his head, which he warded off, but inflicted a severe wound on his arm. With this exception, not an officer or a man was to be seen on it to oppose him; but upon the gangways (he says) about twenty Americans made a slight resistance, and were instantly driven towards the forecastle, where a few endeavored to get down the fore-hatchway, but in their confusion prevented each other. A few fled over the bows and reached the main-deck through the bridle-ports, and the remainder laid down their arms and submitted. First Lieutenant Ludlow, of the Chesapeake, though wounded, hurried on deck, where he soon received a mortal sabre-wound, and Second Lieutenant Budd attempted to lead up the first division of boarders from below, but only a few followed him. He gave orders to haul on board the fore-tack, and attempted to regain possession of the quarter-deck, but was immediately wounded and thrown down on the main-deck. He made another attempt to meet the boarders, but by that time the enemy had complete possession of the spar-deck. The English account says, "Some thirty of the Shannon's quickly followed the first boarding-party, who kept down the men who were ascending the main hatchway, and answered a spirited fire still continued from the main and mizzen-tops." But the crew of the Chesapeake had no officer to rally them, and were really overpowered. The total number who got on board from the Shannon was 50, of whom 5 were officers, viz., Captain Broke, Lieutenants Watts and Falkner, Midshipmen Smith and Drake. There were 34 sailors and 5 marines of the Shannon, and 4 men from other ships. Captain Lawrence, lying in the wardroom and hearing the firing cease, forgot the anguish of his wounds, and having no other officer near, ordered John Dix, the surgeon-mate in attendance on him, on deck to "Tell the men to fire faster, and not give up the ship:" adding, "The colors shall wave while I live."

The English say that when they boarded, most of the men in the

Chesapeake's fore and main tops fled to the decks. In the mizzen-top three men were shot by Midshipman Cosnahan from the main-yard of the Shannon, and one fled to the deck, but the remaining man kept up his fire on the boarders, much to their annoyance. He was closely watched, but no one could get a shot at him, when a seaman stormed the top and threw him into the starboard quarter boat of the Chesapeake just as the contest on the forecastle was ended. Captain Broke in his official report credits Midshipman Smith with having stormed the Chesapeake's fore [main?] top, which appears to have been a mistake, as Lieutenant Wallis says, "It was a mere invention," . . . "but he did board her from our fore-yard, and slid down one of her back-stays."

After the Chesapeake's men upon the forecastle had submitted, Captain Broke ordered one of his men to stand sentry over them, and sent his other followers aft, where the conflict was still raging. He was giving orders to answer the fire from the tops, when the sentry hastily called out to him. Turning around, the captain found himself treacherously opposed by three of the Chesapeake's crew, who are said to have been English deserters, who, seeing they were superior to the British near them, had armed themselves afresh. Captain Broke parried the middle fellow's pike and wounded him in the face, but at the instant received from the man on the pikeman's right a blow from the butt of a musket which bared his skull and nearly stunned him. The third man cut him down with a broadsword, which exposed his brain to view for three inches or more, and was himself cut down by one of the Shannon's seamen. Captain Broke and his foe then lay side by side on the Chesapeake's forecastle, each, though weak, nearly powerless, and covered with lime* and blood, struggling, the captain for the possession of his sword, which had fallen from his grasp, and the American for a bayonet with which to dispatch his foe. At last the sailor being the stronger, got uppermost with the bayonet, when John Hill, a marine of the Shannon, came up, and was about to thrust Captain Broke through with his bayonet, when Captain B., with great sang-froid and presence of mind, called out, "Poh! poh! you fool! Don't you know your captain?" when Hill raised his arm and ran the American through. Had Broke spoken in a voice and manner unusual the marine would certainly have made a fatal attack upon him. This scene is the subject of an illustration in the Life of

*A cask of unslacked lime on the Chesapeake's forecastel, probably placed there to be used in repelling boarders, had been struck by a shot from the Shannon and scattered around over the deck.

Admiral Broke, where it is styled a treacherous attack; but inasmuch as the captain was at the time giving orders to fire on the maintop, and the ship had not been surrendered, it can scarcely be considered such. Captain B. was not the only sufferer in this episode, for one of his men was killed and two wounded, so that his three assailants were more than matched, and overpowered by superior numbers.

In this hand-to-hand conflict, says an English authority, "the Americans fought desperately, because they had no time to escape the impetuosity of the British charge, rather than from any determination or plan to defend the ship; for a general panic having been caused by the slaughter they had suffered, they fled as considering the ship already surrendered."

While the scenes which we have described were taking place on the forecastle, in less time than we have taken to narrate them, a reinforcement of thirty men had followed the original score that dashed on board with the captain, and Lieutenant Watt, who had been shot in the foot by a musket-ball from the mizzen-top while boarding, rushing aft, hauled down the stars and stripes at the peak, and was engaged in hoisting the English ensign over them, and it is said, by mistake, had bent them on in the hurry with the stars and stripes uppermost, and was so rehoisting them when the top of his head was taken off by a grape-shot from the Shannon's seventh gun; or, according to another acocunt, he was instantly killed, the shot passing over the head of a quartermaster of the Shannon, who was very short, and striking Watt, who was a tall man, in the chest, and killing two of the Shannon's men near him.

Broke, wounded, on the forecastle, was tenderly raised by two of his midshipmen, and whilst one bound an old handkerchief round his streaming head the other cheered him by saying, "Look there, sir; there goes the old ensign up over the Yankee colors." Slowly then they led him to the quarter-deck and seated him, half fainting, on a carronade-slide.

Whilst these events were passing on the forecastle and quarter-deck, an animated conflict of two or three minutes was maintained on the main-deck, which ended in the dispersion of her crew, who were driven below. A grating was then placed over the main hatchway and a marine posted as sentry over it. This man, seeing a comrade pass, stretched out his hand to him in congratulation on their victory, when he was fatally shot from below. Lieutenant Falkner, on this, rushed forward, and presenting his pistol, said he would blow the brains out of the first man who attempted to fire another shot. The firing aroused Broke, and on being informed the cause, he faintly

directed the Americans to be driven into the hole, and then lapsed into total insensibility. By this time, the Chesapeake's head gradually falling off, her head-sails filled, and she broke away from the lashings and forged across the bow of the Shannon. As the ships separated a general cry was raised on board the Shannon to cease firing. It was impossible to throw more men on board, and unnecessary, as the boarding-party hailed, *"We have possession."*

The battle was over. Between the discharge of the first gun and Captain Broke's boarding only twelve minutes had elapsed, and the scenes which followed, up to the cry of "Cease firing," occupied only three or four minutes, all accounts agreeing that the action was over in fifteen minutes.

"The two ships presented a dismal spectacle after the battle. Crowded with the wounded and dying, they resembled floating hospitals, sending forth groans at every roll." The brave Broke lay delirious from his wounds, but fresh reinforcements were sent from the Shannon, and he was soon removed to his own ship. The wounds of Lawrence rendered his removal impossible, and his cabin being very much shattered, he remained in the wardroom of the Chesapeake, attended by his own surgeon and surrounded by his brave and suffering officers, except Ludlow, who was removed to the Shannon and placed in the vacant berth of poor Watt, the first lieutenant of the Shannon, who had been killed in the moment of victory. The surgeon of the Shannon was sent on board to consult with the surgeon of the Chesapeake in regard to Lawrence. Few inquiries were necessary; but few as they were, Lawrence anticipated them, and in their mournful answer steadily prognosticated his own decease. "I know," he said, "why you ask *that* question. My own surgeon asked the same, and I see from it there is no hope for me." In this way he lingered four days in extreme bodily pain, and the silent melancholy of a proud and noble heart, in his delirious moments murmuring, "Don't give up the ship," and then expired. His body, wrapped in the colors of his ship, was laid on her quarter-deck and so conveyed to Halifax.

As the sun went down over the blood-stained waters of the bay, and in the twilight interval between his setting and the moon's uprising, the slain on board both ships were committed to the deep, "tenderly, yet quickly; sadly and in a few words." This done, the rigging was knotted, the masts fished, and the decks partially washed. Half the Shannon's officers went on board the prize, and the prisoners were quickly and readily secured "with manacles found in a hogshead on deck, in readiness for the foe, had the action been otherwise decided." With the stars and stripes drooping beneath the ensign of

St. George from the peak of the Chesapeake, the two ships started for Halifax, and the small vessels that had gone out from Boston and its neighboring inlets to witness the fight sorrowfully turned homeward.

On board the Chesapeake the night was an anxious one for the victors. The prisoners were noisy and abusive. Her main-deck was therefore scuttled, and one of the main-deck guns pointed down into the hold, and by that means submission established. At 4 A.M. it was found advisable to send more of the prisoners to the Shannon, and the ships were hove to for that purpose, Cape Cod still in sight and not more than eight or ten leagues distant. The Chesapeake remained in sight of the Shannon, and was directed by her movements during the 2d, 3d, and 4th of June. On Saturday, the 5th, whilst off Sambro Light, a dense fog obscured her whereabouts. The signal-guns fired from the Shannon that day must have had a mournful significance on board the Chesapeake, for Lawrence then lay dead in her wardroom. On Whit-Sunday, the 6th, the fog continued, but two hours past noon it lifted, and the Chesapeake hove in sight; and at 3:30 P.M., just as all the church-bells of Halifax had called its citizens to evening prayer, the Shannon, closely followed by her prize, glided past the wharves amid exulting cheers, and clewing up her topsails, came to anchor.

Judge Haliburton, better known by his *nom de plume* of Sam Slick, has furnished a very graphic account of the arrival of the ships at Halifax and their appearance. He says, "I was attending divine service at St. Paul's Church, when a person was seen to enter hurriedly, whisper to a friend in the garrison pew, and as hastily withdraw. The effect was electrical; the news flew from pew to pew, and one by one the congregation left the church. The movement became so general that I left the building to inquire the cause of the commotion. I was informed an English man-of-war was coming up the harbor with an American frigate as her prize. By that time the ships were in full view, near George's Island, and slowly moving through the water. Every house-top and every wharf was crowded with groups of excited people, and as the ships successively passed they were greeted with vociferous cheers. Halifax was never in such a state of excitement before or since. It soon became known the ships approaching were the Shannon and Chesapeake, and that the former was in temporary charge of Lieutenant-Provost Wallis, *a native of Halifax*. This circumstance naturally added to the enthusiasm of the citizens, for they felt that through him they had some share in the honor of the achievement. No one could have supposed

that these ships had been so recently engaged in mortal combat, for as they slowly passed up to the dock-yard they appeared as if they had just returned from a cruise.

"As soon as possible after the vessels had anchored near the dock-yard a young friend and myself procured a boat, and pushed off to endeavor to obtain permission to visit them. We were refused admisson to the Shannon, in consequence of Captain Broke's requiring quiet and repose, on account of his severe wounds; but we were more fortunate in obtaining access to the Chesapeake. Externally she looked as I have said,—as if just returned from a short cruise; but internally the scene was never to be forgotten by a landsman. The deck had not been cleaned (for reasons of necessity that were obvious), and the coils and folds of rope were steeped in gore, as if in a slaughter-house. She was a fir-built ship, and her splinters had wounded nearly as many men as the Shannon's shot. Pieces of skin with pendant hair were adhering to the sides of the ship, and in one place I noticed portions of fingers protruding, as if thrust through the outer wall of the frigate; while several sailors, to whom liquor had evidently been handed through the portholes by visitors in boats, were lying asleep on the bloody floor, as if they had fallen in action and expired where they lay. Altogether it was a scene of devastation as difficult to forget as to describe. It is one of the most painful reminiscences of my youth, for I was but seventeen years of age, and it made upon me a mournful impression that, even now (1864), after a lapse of half a century remains as vivid as ever." . . . "The guns of the Chesapeake had all names given them, which were painted in large white letters." . . . "I observed on the quarter-deck the figure of a large man wrapped in the American flag. I was told it was the corpse of the gallant Captain Lawrence, who fell in the discharge of his duty, and whose last words are reported to have been, *'Don't give up the ship!'*"

Recently a visitor to Halifax met an old gentleman who told him that he was about seventeen years old, and they were coming out of church just as the ships were coming up the harbor. They all knew the Shannon, and that the Chesapeake was a prize, by the American ensign which was set below the British flag. All rushed to the wharves and cheered the Shannon, whose band responded by playing "Rule Britannia," and "Yankee Doodle," and that old gentleman added, "We all felt nice."

Lawrence was buried at Halifax on the 8th of June with all the honors of war due his rank. By order of the governor 300 rank and file of the Sixty-fourth Regiment, commanded by a lieutenant-colonel,

with the proper proportion of officers, and the officers of the garrison marching two and two, and wearing crape on the left arm, attended the funeral. Boats two and two, with all the naval officers present, and the American naval officers, followed the corpse to the shore. The corpse, with the American ensign spread over the coffin, on which was placed the sword of the deceased, was landed from the Chesapeake. Six captains of the navy, one of whom was Commander Blythe of the Boxer, killed a few months later in action with the Enterprise, officiated as pall-bearers. Six captains of the Sixty-fourth Regiment preceded the corpse, and the few remaining officers of the Chesapeake followed as mourners. The staff-officers of the navy, and Sir Thomas Saumarez, with the staff and officers of the garrison generally, attended, and the procession was closed by a number of the most respectable inhabitants of Halifax. The funeral-service was performed by the rector of St. Paul's, and three volleys were discharged by the troops over the grave.

"O'er his bier his colors laid,
Above is placed his faithful blade.
No more is heard the victor's cheer,
The brave respect the hallowed bier;
No warlike passion fills their breasts,
Hushed in repose the warrior rests."

Ludlow died on the 13th of June following. His remains were entombed with every mark of military distinction which a generous enemy could bestow on a gallant youth who fell in defending his country's flag.

On the 7th of August the brig Henry, of Salem, Captain George Crowningshield, Jr., sailed from that port with a flag of truce for Halifax, where she arrived on the 10th, and having accomplished the object of her voyage, sailed again on the 13th with the remains of Captain Lawrence and Lieutenant Ludlow on board, and arrived at Salem on the 18th. On the 23d the bodies were landed with appropriate honors and conveyed to the Rev. Mr. Spaulding's meeting-house, which was hung with sable cypress and evergreen, where the Hon. Joseph Story pronounced a eulogy, and the remains were then conveyed by faithful seamen to the tomb, where the Masonic societies and miltary corps paid the last ritual homage to them.

They were soon after conveyed to New York, where a procession was formed, which, with spectators, it is estimated amounted to fifty thousand. The burial-service was once more performed, and the dead

committed to the tomb. The monument is in Trintiy church-yard, Broadway, so placed that the last part of the inscription can be read from the street. The first monument erected—a broken column—became very much dilapidated, and in 1864 the present plain but handsome brownstone structure, carved with appropriate devices, was erected, and inclosed with chains supported by posts formed of cannon captured from the British.

It is creditable to the crews of H. M. ships on the North American station that they subscribed two days' pay for the relief of the widows and orphans slain on board the Shannon, and in the Admiralty burying-ground at Halifax there is a granite monument "Sacred to the memory of those brave seamen who died at the hospital of wounds received on board the Shannon in her glorious action in which she captured the U. S. frigate Chesapeake," etc. But no stone or mound marks the spot where the mortally wounded on board the Chesapeake are laid at rest.

The court which was assembled to inquire into the loss of the Chesapeake reported the Shannon as much cut in her spars and rigging, and, receiving many shot in and below the water-line, was reduced almost to a sinking condition, while the Chesapeake was comparatively uninjured, and that they had no doubt that if the Chesapeake had not fallen on board the Shannon, the latter must have very soon surrendered or sunk. In the British official report it is stated, "Both ships came out of action in the most beautiful order, their rigging appearing as perfect as if they had only been exchanging a salute." Neither of these assertions is correct. In the Shannon's log, immediately after the action, it was noted, "Masts wounded and rigging and hull of the ship much cut up. All hands diligently employed refitting the rigging and *stopping shot-holes.*" A detailed report of the number of times the vessels were hit and the damage they sustained was made to the British authorities, by which it appears the Chesapeake was struck by twenty-five 32-pounder shot, twenty-nine 18-pounder shot, three hundred and six grape-shot, and two 9-pounder shot,—in all 362 times; the Shannon was struck by thirteen 32-pounder shot, twelve 18-pounder shot, one hundred and nineteen grape-shot, and fourteen bar-shot,—total, 158 times.

Not one of the bar-shot which struck the Shannon was effective in passing through the ship's sides. They appear to have struck the side of the Shannon, making great scratches or marks, and then to have fallen into the sea. One, however, struck the Shannon end on, and its end came through the side and protruded itself on the main-deck. The ships were engaged within a ship's width, or forty

feet of each other, and it is worthy of remark that even at this very small distance some of the heaviest shot stuck in their sides. The grape-shot did not penetrate into the main-decks, but only through the bulwarks and, of course, through the ports. The bar-shot were perfectly useless against the hull, spars, and slings of the yards. They were only effective against the lower rigging. The Chesapeake fired a good deal of case langridge (canister), but it was useless except to aggravate wounds on the men. An English writer acknowledges "the Chesapeake's fire was excellent, for she struck the Shannon with twenty-eight shot of all sizes every minute, and this notwithstanding the Shannon struck her with sixty shot of all sizes a minute." It should be recollected that the Chesapeake's spar-deck fire was comparatively stopped when the vessels fouled, while the Shannon's was continued after the boarding.

One quarter-deck carronade was dismounted, and four main-deck guns of the Chesapeake were rendered useless. One of the main-deck guns was split at the muzzle for more than a foot. In the cabin one gun had the cascabel knocked and was otherwise shot; another had been struck by two or three shots, and the carriage shot through; another on the main-deck, the third from aft, was also damaged, and several had trucks split; but that, observes the English authority, "did not prevent the working of these guns, as the Chesapeake had half-trucks bolted on the carriages just within the side,"—an advantage gained by what we call "dumb trucks" I have never seen stated, and which, it is evident, were a new idea to the Englishmen. The Chesapeake's hammocks were driven in on the forecastle-waist and quarter-deck in several places in gaps, and above the hammocks the lower rigging was very much cut close down to the upper deck. The carpenter of the Shannon reported thirty or forty as having entered the Chesapeake's stern over and above the number which could be ascertained by the holes and marks which they had made, evidently an exaggeration, but the wrecked state of the stern, the cabin in general, and the three after-guns on the port side proved many more round-shot had taken effect than could be accounted for by individual marks. The overhead in the cabin was lined with fir-wood as a ceiling, and the whole of this was covered with splinters of gun-metal, and some of the beams were splintered for some feet in length. The Chesapeake had a double transom,—a transverse timber laid athwart the stern-frame, which formed a shelf or flat surface in the wardroom just below the stern-post. This wood-work, full five feet thick, was much shot and splintered up. An 18-pounder shot entered it diagonally and penetrated it for nearly seven feet! All the spare compasses in the

Chesapeake had been placed on this wood-work, and were so shot and knocked about as to be useless; the binnacle compasses having been also destroyed, the prize had not one left to steer by.

The Shannon was struck by twelve 18-pounder shot on the fore and main masts, through the knee of the head, between the spar and main decks, under the fore-chains, through the wales, three times just above the water line, and through the quarter-deck bulwark. One of these shot struck a quoin, which struck a marine, the captain of a gun, and drove his knee-cap half-way up his thigh. He would not go to the cock-pit, but was placed by the mainmast, where he cried bitterly at being thrown out of the fight. Of the thirteen 32-pounder shot which struck the Shannon, two struck the mainmast, one the mizzen-mast, two went through the knee of the head and lodged in the hawse-hole, one went through below the bridle-port, three went through the main-deck, two went through the quarter-deck bulwark, one through the copper, and one through the wales. The fourteen bar-shot which struck did not cause any leakage. The grape-shot, of which there were 119 hits, did not pass anywhere below the bulwarks, and every one which struck passed through. The loader of one of the guns on the Shannon was struck by a grape-shot. It entered just below his stomach and fell into the cavity of the body; but though thus wounded the brave fellow would not go below. He was led to an arm-chest, and there lay down in dreadful agony, begging those about him to put their hands into the wound and take the shot out, saying, "I shall do well enough if you will only do that." Of course he died.

Any account of this action without the official reports would be incomplete. They are therefore appended. Official reports are presumed to embody in concise form the principal events, yet in this action they are not to be entirely relied upon. The American official report was made by the acting second lieutenant, who was not on the upper deck until the boarding-party from the Shannon was in possession of it, and the British official report, to which the name of Captain Broke was appended, is known to have been prepared when he was weak and delirious, it being doubtful if he ever signed it. Lieutenant Wallis, the second lieutenant of the Shannon, and the officer who brought her to Halifax after the death of Watt,—Broke being *hors du combat* from his wounds,—declined the responsibility of writing a report of the action, hoping his beloved commander would be able to do so. It was considered important by Captain Capel, the senior officer at Halifax, that a report of the engagement should reach England without delay, and accordingly the so-called official report, "the

concoction," as Wallis calls it, "of Commissioner Wodehouse and Captains Capel and Byron," was sent to England by Lieutenant Falkner without being shown him for revision. Captain Broke was vexed by the errors in his published letter, and especially so much of it as related to Smith's storming the foretop, "and the marine officers boarding at the head of their divisions, when they did not board at all." Wallis says, "It was equally erroneous to say that the ships came out of action as if they had only been exchanging a salute, the fact being that the Shannon's lower rigging was all cut through, and the masts consequently unsupported, so that had any sea been on they would have gone over the side." He adds, "The story that Broke gave me orders to take charge of the Shannon and Falkner the Chesapeake is fabulous, the pure invention of the concoctors of the letter. Broke's wounds rendered it impossible for him to have done so."

The Official Reports of the Action.

Lieutenant Budd's official account of the action.

"Halifax, June 15, 1813.

"Sir,—The unfortunate death of Captain James Lawrence and Lieutenant Augustus C. Ludlow has rendered it my duty to inform you of the capture of the late United States frigate Chesapeake.

"On Tuesday, June 1, at 8 a. m., we unmoored ship, and at meridian got under way from President's Roads, with a light wind from the southward and westward, and proceeded on a cruise. A ship was then in sight in the offing, which had the appearance of a ship-of-war, and which, from information received from pilot-boats and craft, we believed to be the British frigate Shannon. We made sail in chase and cleared ship for action. At half-past 4 p. m. she hove to, with her head to the southward and eastward. At 5 p. m. took in the royals and top-gallant-sails, and at half-past 5 hauled the courses up. About fifteen minutes before 6 p. m. the action commenced within pistol-shot. The first broadside did great execution on both sides, damaged our rigging, killed, among others, Mr. White, the sailing-master, and wounded Captain Lawrence. In about twelve minutes after the commencement of the action we fell aboard the enemy, and immediately after one of the arm-chests on the quarter was blown up by a hand-grenade thrown from the enemy's ship. In a few minutes one of the captain's aids came on the gun-deck to inform me that the boarders were called. I immediately called the boarders away, and proceeded to the spar-deck, where I found that the enemy had succeeded in boarding us, and had gained possession of our quarter-deck. I im-

mediately gave orders to haul aboard the fore-tack, for the purpose of shooting the ship clear of the other, and then made an attempt to regain the quarter-deck, but was wounded and thrown down on the gun-deck. I again made an effort to collect the boarders, but in the mean time the enemy had gained complete possession of the ship. On my being carried down to the cockpit, I there found Captain Lawrence and Lieutenant Ludlow, both mortally wounded; the former had been carried below previously to the ship's being boarded, the latter was wounded in trying to repel boarders. Among those who fell early in the action was Edward J. Ballard, the fourth lieutenant, and Lieutenant James Broom, of marines. I herein inclose to you a return of the killed and wounded, by which you will perceive that every officer upon whom the charge of the ship would devolve was either killed or wounded previously to her capture. The enemy report the loss of Mr. Watt, their first lieutenant, the purser, the captain's clerk, and 23 seamen killed, and Captain Broke, a midshipman, and 56 seamen wounded.

"The Shannon had, in addition to her full complement, an officer and 16 men belonging to the Belle Poule, and a part of the crew belonging to the Tenedos.

"I have the honor to be, with great respect, etc.,

"GEORGE BUDD.

"HON. WM. JONES, *Secretary of the Navy.*"

"KILLED.—Edw'd J. Ballard, acting lieutenant; James Broom, first lieutenant of marines; Wm. A. White, sailing-master; Pollard Hopewell, midshipman; John Evans, Midshipman; Courtland Livingston, midshipman; Daniel Burnham, quartermaster; James Woodbury, quartermaster; Michael Kelly, quarter-gunner; John Carter, boatswain's mate; also 26 seamen, 11 marines; total killed, 47.

"WOUNDED.—James Lawrence, Esq., captain (since deceased); Aug. C. Ludlow, lieutenant (since deceased); George Budd, lieutenant; Wm. Cox, acting lieutenant; Samuel Livermore, acting chaplain; Francis Nichols, Walter Abbott, Wm. A. Weaver, Edmund M. Russell, Wm. Berry, midshipmen; Peter Adams, boatswain (since dead); Jeffers Griffith and James A. Lewis, quartermasters; Foster Dela, quarter-gunner (since dead); Samuel Hutson, sailmaker's mate; Thomas Finnegan, gunner's yeoman; Thomas Smith, second; John Veazy, John Giles, and Thomas Rouse, quarter-gunners; and Thomas Jackson, second quartermaster; total officers and petty officers wounded, 21; and seamen, 58; marines, 20; total wounded, 99; of whom died of their wounds, 14."

CAPTAIN P. B. V. BROKE'S OFFICIAL REPORT OF THE ACTION.

"SHANNON, HALIFAX, June 6, 1813.

"SIR,—I have the honor to inform you that being close in with Boston lighthouse, in His Majesty's ship under my command, on the 1st inst., I had the pleasure of seeing the U. S. frigate Chesapeake (which we had long been watching) coming out of the harbor to engage the Shannon. I took a position between Cape Ann and Cape Cod, and then hove-to for him to join us. The enemy came down in a very handsome manner, with three American ensigns flying. When close up with us, he sent down his royal yards. I kept the Shannon's up, expecting the breeze would die away. At half-past 5 P. M. the enemy hauled up within hail of us on the starboard side, and the battle begun, both ships steering full under topsails. After exchanging between two and three broadsides the enemy's ship fell on board of us, their mizzen-channels locking in with our fore-rigging. I went forward to ascertain her position, and observing that the enemy were flinching from their guns, I gave orders to prepare for boarding. Our gallant bands appointed for that service immediately rushed in under their respective officers upon the enemy's decks, driving everything before them with irresistible fury. The enemy made a desperate but disorderly resistance. The firing continued at all the gangways and between the tops, but in two minutes' time the enemy were driven, sword in hand, from every post. The American flag was hauled down, that the proud old British union floated triumphant over it. In another minute they ceased firing from below, and called for quarter. The whole of this service was achieved in fifteen minutes from the commencement of the action.

"I have to lament the loss of many gallant shipmates, but they fell exulting in their conquest. My brave first lieutenant, Mr. Watt, was slain in the moment of victory, in the act of hoisting the British colors. His death is a severe loss to the service. Mr. Oldham, the purser, who had spiritedly volunteered the charge of a party of small-armed men, was killed at his post on the gangway. My faithful old clerk, Mr. Dunn, was shot by his side. Mr. Oldham has left a widow to lament his loss. I request the commander-in-chief will recommend her to the Lords of the Admiralty. My veteran boatswain, Mr. Stephens, has lost an arm. He fought under Lord Rodney on the 12th of April. I trust his service will be duly rewarded. I am happy to say Mr. Samwell, a midshipman of much merit, is the only officer wounded besides myself, and he not dangerously. Of my gallant seamen and marines, we had 23 slain and 56 wounded. No expressions I can make

use of can do justice to the merits of my brave officers and crew; the calm courage they displayed during the cannonade and the tremendous precision of their fire could only be equaled by the ardor with which they rushed to the assault. I recommend them all warmly to the commander-in-chief.

"Having received a severe sabre wound at the first onset, whilst charging a party of the enemy who had rallied on the forecastle, I was only capable of giving command till assured that our conquest was complete; and then directing the second lieutenant, Wallis, to take charge of the Shannon and secure the prisoners, I left the third lieutenant, Falkner (who had headed the main-deck boarders), in charge of the prize. I beg to recommend these officers most strongly to the commander-in-chief's patronage for the gallantry manifested during the action, and the skill and judgment displayed in the anxious duties which afterwards devolved upon them. To Mr. Etough, the acting master, I am much indebted for the steadiness with which he conned the ship into action. Lieutenants Johns and Laws of the marines bravely boarded at the head of their respective divisions. It is impossible to particularize every brilliant deed performed by my officers and men; but I must mention that when the ship's yard-arms were locked together, Mr. Cosnahan, who commanded in our maintop, finding himself screened from the enemy by the foot of the topsail, laid out of the mainyard-arm to fire upon them, and shot three men in that situation. Mr. Smith, who commanded in our foretop, stormed the enemy's foretop from the foreyard-arm, and destroyed all the Americans remaining in it. I particularly beg leave to recommend Mr. Etough and Messrs. Smith, Leake, Clavering, Raymond, and Littlejohn, midshipmen. The latter officer is son to Captain Littlejohn who was slain in the Berwick. The loss of the enemy was about 70 killed and 100 wounded. Among the former were the fourth lieutenant, a lieutenant of marines, the master, and many other officers. Captain Lawrence is since dead of his wounds.

"The enemy came into action with a complement of 440 men. The Shannon, having picked up some recaptured seamen, had 330. The Chesapeake is a fine frigate, and mounts forty-nine guns, 18's on her main-deck, and 32's on her quarter-deck and forecastle. Both ships came out of the action in the most beautiful order, their rigging appearing as perfect as if they had only been exchanging a salute.

"I have the honor to be, etc.,

"P. B. V. BROKE.

"To CAPT. THE HON. T. BLADEN CAPEL, etc., Halifax."

LIST OF KILLED ON BOARD H. M. S. SHANNON.

"G. T. L. Watt, first lieutenant; G. Aldham, purser; John Dunn, captain's clerk; G. Gilbert, Wm. Bertles, Neil Gilchrist, Thomas Selby, James Long, John Young, James Wallace, Joseph Brown, able seamen; Thomas Barr, Michael Murphy, Thomas Molloy, Thomas Jones, John O. Connolly, ordinary seamen; Thos. Barry, first-class boy. *Marines.*—Samuel Millard, corporal; James Jaynes, Dominique Sadin, Wm. Young, privates. *Supernumeraries.*—Wm. Morrisay, John Moriarty, Thomas Gormon.

"P. B. V. BROKE, *Captain.*
"ALEX. JACK, *Surgeon.*"

By the late GEORGE H. PREBLE,
Rear-Admiral U. S. Navy.

THE USE OF TREES IN WIRELESS TELEGRAPHY IN FIELD OPERATIONS.

THE United States Army Signal Corps, during the recent military maneuvers at American Lake, Washington State, and Camp Atascadero, California, made a discovery which may prove valuable as a means of introducing wireless telegraphy into field operations.

Complicated appartus for this purpose is in use in the German army and has been adopted by the Russians, but this new discovery will greatly simplify the methods employed.

In transmitting electro-magnetic waves over land, the absorption of intervening hills, vegetation and conductors in general, through which the electric waves must pass in reaching the receiving apparatus, has always heretofore interfered with the use of wireless telegraphy over land areas, but by the present system this has been overcome, at least for short distances.

At the American Lake maneuvers, Lieutenant William M. Goodale, U. S. Signal Corps, found that in laying rapid telephone lines in a wooded country, for the field exercises of the army, a much better ground could be obtained by making the ground connection through a nail driven into a tree or shrub, than by the ordinary method of burying a conducting plate, and much more readily. In very dry, sandy soil, such as was found at Camp Atascadero, it was very difficult to get a good ground by the ordinary method, but by utilizing trees for the purpose, a telegraph or telephone station could be established in a few moments with an excellent ground, even when the nail was placed 30 feet or more above the earth surface.

Major George O. Squier, U. S. Signal Corps, who was in charge of the signal work at Camp Atascadero, found also that good communication could be maintained from one tree top to another, with the trunks of both trees in the circuit. He also found that when the operator holds the ground wire in his hand, and completes the circuit to earth by merely touching a live twig or leaf, the transmission of speech is good.

The advantage of this, in a military sense, is apparent. A scout can thus use the tree elevation to obtain a good view, screened by the foliage from the enemy, and can still transmit, by his field telephone in his hands, the information he obtains to any distant station connected by field telephone wire.

These were the observations which led to the discovery of utilizing trees in wireless field telegraphy. The experiments on this subject were conducted at Fort Mason, San Francisco, California, utilizing the grove of eucalyptus trees in front of the quarters of Major General Arthur Mac Arthur, commanding the Pacific Division, in connection with the Signal Corps wireless stations at Fort Mason and on Alcatraz Island, in the bay, and the naval wireless station on Yerba Buena island, 3¼ miles away.

The advantages of using wireless telegraphy in field operations would be very great, since the maintenance of a wire line has always presented a serious obstacle, and particularly in a military terrain, where it is liable to constant interruption. On the other hand, the equipment and apparatus thus far used has the great objection of requiring some form of mast, captive balloon or kite to be transported, and these are not only difficult to manage and get into position when required, but also disclose the position to the enemy.

Major Squier's apparatus not only avoids all these difficulties and objections, but is exceedingly simple besides. A tree is used to support the sending aerial, the ground or earthing being effected by attaching a wire to one or more nails driven into its base. The tree stem was used to support the aerial, the only electrical connection therewith being at its base. A sending station can be installed in ten to fifteen minutes. For receiving, another tree was used, to which the receiver was attached at a convenient height. The receiver consists merely of a microphone, three small dry cells and a head telephone receiver.

Other investigations of a scientific character were made in the course of these experiments, especially interesting in the study of botany. We quote a few remarks of Squier, which are of general interest:

"It would seem that living vegetation may play a more important part in electrical phenomena than has been generally supposed. We have seen that living vegetable organisms absorb and conduct electro-magnetic oscillations over a wide range of the electro-magnetic spectrum, beginning with sunlight, whose electrical action in the plant cell is at present little understood, and

extending to waves of identical character, but of immensely greater lengths, such as Hertizian radiation, telephonic waves, and oscillations of the ordinary low frequencies used in commercial electric transmission lines. * * *

"According to present theory, all electrical conduction is really electrolytic in character, accompanied by dissociation of electrons and recombination, so that actual oscillatory currents maintained throughout the living organisms of vegetation may effect changes in a growth whose very existence is now known to vitally depend upon the electro-magnetic waves of sunlight. * * *

"During daylight the air is filled with electrous, carying positive and negative charges of electricity, which are more or less recombined during the night."

The great practical value of the experiments, however, lies in their application for war purposes, and General Mac Arthur considered the results of sufficient importance to embody the entire account in his report to the War Department on the military maneuvers in the Pacific Division, 1904. Incidentally, these discoveries indicate another advantage of holding the annual maneuvers, since the officers participating therein work under the stimulating effects of conditions simulating war and directly under the eyes of their superiors, so that prompt recognition of good service is sure to be accorded.

The possibilities of wireless telegraphy have by no means been exhausted, and the immense advantages to be derived from the above system of communication in the field cannot be estimated. Information of the enemy as well as of the conditions in his own troops at distant points of the line of a modern battle, is the great desideratum of the commanding general to-day, when battlefields have assumed such enormous proportions, and any means which will facilitate the transmission of information is hailed with delight by the staff of an army.

JOHN P. WISSER,
Major U. S. Army.

OUR CONTEMPORARIES.

The *second* article is a tribute to a great soldier, whom we should all like to know better:

"By the retirement of Sir Evelyn Wood from his command at Salisbury, a brilliant military career has come to a close. Commencing his service in the Royal Navy, in which he had his first experience of war in the Crimea, Sir Evelyn Wood abandoned the hope of attaining high rank, as he would have been bound to do as a sailor, and joined the 13th Light Dragoons, exchanging to the 17th Lancers in time to see much active work in Central India during the Mutiny. Here he gained the Victoria Cross by a signal act of gallantry. He shortly afterwards effected another exchange, and the infantry of the Line claimed him as its own, for it was as an infantry officer that his whole subsequent regimental life was to be passed. The Ashanti Expedition gave him his first real chance. He had passed the Staff College in 1864, and held various appointments on the Staff in Great Britain; and his reputation at that early period stood so high that it was not to be wondered at that Lord (then Sir Garnet) Wolseley gladly availed himself of the opportunity of taking with him to Kumasi one who had already earned the confidence of the generals under whom he had done duty. Returning from the Gold Coast, Colonel Wood soon found his way to South Africa, where he again had opportunities of displaying those splendid qualities of leadership which caused him even then to be regarded as a coming man of mark in his profession. His record in the Zulu War enhanced his reputation greatly, and the promotion which arrived to him on the close of operations made his position in the Service secure, so that when the trouble arose in Egypt in 1882 it was but natural that he should be singled out for a command. This he filled with such credit that to him was entrusted the duty of organizing the new Egyptian Army. It was a weighty responsibility, but it was one for which the intrepid and tried soldier was fully equal, as the result proved beyond doubt. The public are apt to forget how much the Egyptian Army of to-day—the Army which became afterwards so powerful an instrument in the hands of Lord Kitchener in his prosecution of the campaign against:

Mahdism—owes to the initiative ability of the first Sirdar, who, with what appeared at the time to be such unpromising materials, created a force that has done so much in the cause of civilization. The Nile Campaign of 1884-85 found Sir Evelyn, as he had now become, once more to the fore as G. O. C. of the lines of communication.

"But here his fighting service ended, and he entered upon the work of administration, in which he may be said to have excelled. His command of the Aldershot Division, 1889-93, is modern history enough to need but passing mention. Sir Evelyn was an ideal chief of instruction, and the order which prevailed in all things at our principal tactical station, and the way in which the three arms were kept constantly moving for their mutual benefit, is well known. From Aldershot, General Wood passed to the Horse Guards in 1893 as Quartermaster-General, an office he held with advantage both to the Army and taxpayer until 1897. He then became Adjutant-General to the Forces, and was thus employed throughout the period of the great struggle for supremacy in South Africa. It was a trying time for everybody at Headquarters, but Sir Evelyn bore his heavy burden with the complacent resolution which might have been looked for from a man of his experience, ability, and sense of duty. It was not until the war was over that he abandoned his post, and when he did so it was to accept command of the 2nd Army Corps at Salisbury."

The *third* article contains some interesting deductions from the war in the Far East:

"We have been accustomed to read in the text books that it was necessary to *mass* guns in order to attain concentration of fire, but many prescient officers have foreseen that in the future not so much stress would be laid on that point, and the war in the Far East seems to confirm this opinion. When Lord Kitchener issued his now famous Memorandum to the Indian Army, he expressed some ideas concerning the training of the artillery which very definitely anticipated the lessons of the war. He insisted forcibly upon the importance of encouraging the exercise of independent initiative, so that battery commanders might be able to fight their batteries as separate units with the greatest effect. The introduction of smokeless powder and the increased accuracy and range of modern guns are, in fact, contributing to effect a revolution in the employment of artillery, and old ideas concerning concentration and distribution, if not changed, are necessarily placed in a new light. The brigade system at home, well employed, has its advantages for training in enabling a more efficient system to be introduced of directing the fire of dispersed sections, or even single guns; and, though in India that advantage is wanting,

Lord Kitchener was well aware of the importance of dispersion where the hiding of guns is necessary. The operations in Manchuria have very forcibly demonstrated the necessity of intelligent concealment, which may well entail such a wide distribution of guns as to make it impossible for one commander to control more than a single battery, and must throw increased responsibility upon section officers. On the modern battlefield, with a frontage sometimes of many miles, the proper grouping of the artillery must be a matter of the gravest consideration, taxing all the ability of officers responsible for the work. It must be their object to combine the advantages of concentration for fire effect with those of sufficient dispersion for concealment. Never, indeed, was the necessity for higher artillery training more evident than at the present time.

"This wide dispersion, frequently necessary, makes it important that greater attention should be paid to *signalling* in the artillery, both for purposes of command and control, and to convey information regarding the ranges and movements of the enemy, which may be discernible from one position and not from another. This, again, is a matter to which our allies devote the utmost attention with their customary thoroughness and discernment, and both they and the Russians have made effective use of the telephone for the purpose. Obviously, a great deal of practice is necessary in order to bring about a perfect system of directing artillery fire in concentration when guns and batteries are widely distributed, and the matter is even more important in the case of long-range guns and howitzers, and the working of heavy guns and light field-guns in co-operation.

"As to the concealment of guns, there are many lessons from Manchuria which are of importance to practical gunners.

* * *

"Both Russians and Japanese have mastered the lesson. At Wa-fang-kau, Ta-chi-chao, Liao-yang, and in other actions they have acted with the greatest caution, though with much bravery, and have exercised the utmost care in bringing up ammunition. The Japanese take ample time in preparing for the opening and concentration of fire. They do not hasten their guns into action, and never employ them on a narrow front, whereby the danger would be increased owing to the impossibility of concealing them. The Russians attribute their comparative immunity to their frequent use of positions hidden behind ridges, to their use of *indirect* fire, and to the fact that until evening no visible movement of a vehicle has been allowed to reveal their position. They thus claim to have silenced Japanese batteries without any loss to themselves, which, apparently their longer-range

guns would enable them to do. At Port Arthur, where, of course, they have the ranges accurately, they have often opened fire with effect from concealed and unsuspected positions. It may be said, therefore, perhaps, that the principal tactical problems now before the field artillerymen relate to the dispersion of guns for *concealment without forfeiting the advantage of concentration* of fire, to *signalling visibly and by telephone,* and to the *effective direction and control of gun fire.*

The *fourth* article is an entertaining little story of an action familiar to all of us, but interesting here as presenting the British side:

" 'Better an army of stags led by a lion, than an army of lions led by a stag.' So runs an old proverb, and there is no better illustration of this legend than the battle of Bunker Hill, a battle in which the rank and file surpassed themselves, but in which the general proved himself untrustworthy and absolutely unfit to command. In 1774 affairs in America had reached a crisis. The colonists considered the demands of the home government were excessive, and at length they flew to arms, and prepared to assert their independence. General Gage, with a British force at Boston, had sent a detachment to Lexington and Concord, to suppress the disturbance. The militia refused to disperse, some colonists were shot, and all hope of a reparation was speedily shattered. The red-coats, outnumbered, retired in confusion on Boston, and the Americans, forestalling the British, seized the Charlestown peninsula.

"If we glance at the map, we shall see how important this little tongue of land appeared to the colonists. Their guns, planted on Breed's or Bunker's Hill, could drop shells into Boston, where the British troops lay, and quickly make it untenable, drive the defenders inland, where they would be annihilated by the inhabitants, or, as the Americans hoped, into the sea and across the Atlantic. But there was one great weakness in this strategy. The English had command of the sea. Their ships were continually passing to and fro, and nothing would be easier than to land a force in rear of Bunker's Hill, and so completely cut off the small detachment on the peninsula. The gunboats, too, could pour a destructive enfilade fire on the defenders. Verily the English admiral held his opponents in the hollow of his hand. All the night of the 16th of June, the Americans were plying pick and shovel on Breed's Hill, and when dawn broke on the 17th, a long line of trenches bore evidence of their energy. The warships in the harbor quickly opened fire on the work, but the elevation was high, and, as little damage was done, Gage, after some discussion, decided to land and attack.

"The losses were terrible. 1,050 officers and men killed or wounded—over two-fifths of the total force engaged. The 65th had only its grenadier and flank companies in action, yet all the officers but one had fallen. A company of one regiment went in with 49, but only 5 returned.

"The mistakes of the general officers seem endless. Little support was given by the ships; shot of a wrong caliber was carried for the guns; the men were burdened with heavy knapsacks and three days' rations when they were within cannon shot of their supplies; the attack was almost wholly a frontal one; no attempt was made to block up the neck of the peninsula; and so on *ad infinitum.* Such a terrible hash can scarcely be conceived, and we can only hope, in this case, at least, that history may never be repeated."

The *fifth* article has already been considered.

The *sixth* discusses the interesting question of the necessity for *declaring* war, before active military operations begin:

"At no period in the history of the world can it be said that the study of International Law has offered a more interesting series of problems than at the present juncture. These questions, and more particularly those of them which, as the result of modern scientific development, have presented themselves for the first time, can hardly fail to prove of interest to the naval and military services equally with the lawyers.

"Of the various subjects for discussion which the course of the present war has suggested, the first in point of time to claim attention is the question whether a State is bound, before engaging in hostilities, to issue a formal declaraton of war. The matter excited much interest and comment at the outbreak of hostilities between Russia and Japan, and the action of the latter Power, on the 8th of February, 1904, when her torpedo-boats wrought such havoc among the Russian vessels at Port Arthur, has been the subject of serious controversy. The question of the legality of this proceeding has been discussed since the beginning of the war by several of the leading international lawyers of the day, the English jurists, notably Dr. T. J. Lawrence, in his work, 'War and Neutrality in the Far East,' upholding the view that no further declaration of war was necessary, and that Japan was perfectly justified in making a dash at her unready adversary; while several of the continental lawyers, headed by M. F. De Martens, the well-known Russian jurist, and M. H. Ebren, an eminent French lawyer, set forth the contrary opinion. It is proposed in this paper to give a short historical sketch of the practice

hitherto adopted by States, which will enable the ordinary reader to grasp the position of the controversy, and to draw his own conclusions.

"The foregoing remarks make it clear that, while the practice of States is not far from uniform, they differ to some extent in theory. The general trend of continental opinion is in favor of a formal declaration as a necessary preliminary, while English and American writers, for the most part, contend that no such notice is required. Looking at the history of the question it cannot be denied that modern practice has adopted the latter view; but, nevertheless, some strong arguments have been put forward in favor of the continental theory. A preliminary declaration would be more in accordance with those ideas of honor and of chivalry, upon which the practice of the middle ages was supposed to rest. It ought not to be a matter of impossibility to devise some rule by which the exact point at which war begins could be determined, and the suggestion of Bluntschli, quoted above, appears to afford an excellent basis for an international arrangement. Much may be said in favor of the argument which he adduces, and his proposition that a universal manifesto should, before the commencement of hostilities, be issued by the State taking the initiative seems to meet the requirements of the case. A nation which declares war should be satisfied that its position is justifiable from every point of view, and that it cannot be avoided without loss of prestige. If these conditions are not fulfilled, it commits the greatest of all crimes. It is, therefore, desirable that States should have some recognized opportunity of explaining to the world the motives which justify this solemn step. Though the practice of dispensing with these notications has been generally adopted, the question is one which cannot be regarded as closed."

The *ninth* article by Lieut.-Comdr. W. L. Rodgers, U. S. Navy, is an excellent study of a most important subject. The author has taken for illustration and comment the naval attack of harbors in our Civil War, and his essay is deserving of careful study by both Navy and Coast Artillery.

The *tenth* article, by Lieut.-Comdr. A. P. Niblock, U. S. Navy, is another instructive paper.

The *eleventh,* by Naval Constructor D. W. Taylor, U. S. Navy, is reprinted from *Engineering News,* and furnishes some interesting data.

The *twelfth,* by Admiral C. F. Goodrich, and the *thirteenth,* by Lieut. Ellis, U. S. Navy, are both entertaining reading.

The *fourteenth* is an interesting item:

"The Ueberall gives some information regarding the crossing of rivers carried out recently in Germany. A horse artillery battery of the 14th Field Artillery Regiment crossed the Rhine at Maxan, with its guns. The personnel crossed the river by the means in use in the cavalry, viz., in boats drawn by two, three, or four horses swimming on each side. The guns were lashed together by twos on rowing-boats that had been boarded over, or placed singly on rafts formed by empty casks attached to the wheels, and were towed by rowing-boats."

ARTILLERY AND FORTIFICATION.

1. Report of Chief of Ordnance.—*A. and N. Reg.*, Nov. 19.
2. Board on Harbor Defense.—*A. and N. Jour.*, Jan. 14.
3.—Rifling.—*Proc. Nav. Inst.*, Dec.

The *first* article is one of the strongest reports rendered by the head of this bureau:

"SERVICE GUNS AND MORTARS.

"Efforts to improve the rapidity of fire of seacoast and other guns have not been relaxed. The direction of such efforts during the year has principally been confined to mechanical rammers, automatic breech openers, and desirable changes in details of existing mechanism.

"An experimental mechanical breech opening and closing device has also been designed and made. It is now being tested on a 12-inch B. L. rifle mounted on a disappearing carriage.

"MOUNTAIN GUNS AS FIELD MORTARS.

"Experience in the Philippine Islands indicates the desirability of firing mountain guns at higher angles of elevation than originally contemplated by existing designs. In order that proper plans may be made for the use of these guns in this manner, experiments are now in progress to determine the number of powder charges required, with proper overlaps of zones of fire, to cover the field within the range of the guns under conditions considered to be necessary for the proper realization of the effect desired.

FIELD ARTILLERY.

"The manufacture of the 3-inch field artillery material has progressed satisfactorily during the year. The difficulty referred to in my last report of obtaining the superior quality of materials required

in its construction has been overcome with the exception of the counter-recoil springs and panorama sights. All of the material except these two articles is being procured in this country. Repeated efforts have been made to interest American manufacturers in the making of the two excepted articles and, it is believed, with success. Appropriations have so far been made for 26 complete 3-inch field batteries for the Regular Army and 26 batteries for the militia, all of which are now under manufacture, except 6 guns, carriages and limbers, which have been completed and issued. The remainder should be finished by October 1, 1906.

"The design of the sights for this carriage was completed after much study, and sights are now being made at Frankford Arsenal for all carriages under manufacture. The sighting apparatus differs materially in design and operation from that previously used in our service the principal difference consists in the provision made for indirect laying of the gun and for setting it in elevation from either side of the piece. This latter provision enables the piece to be kept constantly on the target, and results in an increased rate of fire.

"The different breech mechanisms for field guns referred to in my last annual report have been tested for the purpose of ascertaining their relative merits and to develop desirable features for adoption in future manufacture. The report of the ordnance board on this subject is contained in Appendix 6 of this report. The results of these tests indicated that the mechanism of the present 3-inch guns, model of 1902, is of a safe type and fitted to render efficient service. The opinion was expressed, however, that it could with advantage be replaced by a similar type involving less care in maintenance and less expense in manufacture. Of the designs tested, the Tasker, submitted by the United States Ordnance Company, was found to possess marked advantages over the others, and arrangements are now being made with a view to the utilization of this design in field guns to be manufactured this year.

"SIEGE ARTILLERY.

"A 4.7-inch siege gun and long recoil carriage has been designed and the carriage partly completed during the year. When finished, they will be thoroughly tested prior to their manufacture in quantity. The gun fires a 60-pound projectile with a muzzle velocity of 1,700 feet per second, and has a recoil of 66 inches on the carriage. A 6-inch siege howitzer and carriage is being designed in this office, and when completed a pilot carriage and howitzer will be built for test.

"A board of artillery officers having recommended that the wheels of siege carriages and limbers be provided with tires 5 instead of 4 inches in width, tests were made at Rock Island Arsenal with a 7-inch siege howitzer carriage and limber with wheels having tires 3, 4, 5, and 6 inches in width on seven different kinds of roads. A description of the roads, material, and methods of making the tests, and the results obtained forms Appendix 3. The results of the tests show that although the wider tires are less destructive to roads, the 4-inch tire requires less tractive force and is better suited for siege artillery than 5 and 6 inch tires."

The *second* article is of such importance that we quote it in its entirety:

"Gen. J. P. Story, Chief of Artillery, U. S. A., in his annual report urges the appointment of a new board, which was duly appointed on January 12 by the President, for the revision of the scheme of coast defenses prepared by the Endicott Board nineteen years ago. General Story gives the following reasons for the revision of this defense plan: 'At the date of the report the superiority of the gun in its duel with ships' armor, had not been determined in favor of the gun. A rapidity of fire in guns of all calibers, especially in small calibers, has been developed that was not, and in fact could not, with any data in possession of the board, have been anticipated. By means of electrical communication we are now enabled to determine quickly and accurately the position of a moving target (war vessel), and to transmit the information to guns of large caliber so expeditiously that we are justified in expecting more hits at longer ranges than at the date of the report could have been hoped for by any system of range finding then known.

" 'While in the report of the Endicott Board the use of electric searchlights is recommended, as an accessory in connection with torpedo defense, their utilization for gun defenses against naval attack is not even suggested. The Army and Navy maneuvers in Portland harbor in 1903 demonstrated the effectiveness of searchlights under the atmospheric conditions then existing there up to 10,000 or more yards' range. The Artillery fire at night, when the target can be seen by means of electric searchlight, is as effective as fire by day. This statement means that no increase of armament is necessary for night defense of harbors.

" 'If submarines are successfully developed, as now appears to be certain, no fleet will lie in front of a port supplied with them. Sub-

marines will in connection with wireless telegraphy work a revolution in blockade operations, and make a surprise naval attack most improbable. I can confidentially assert—and I believe that this is the first time such an assertion has been officially made—that if submarines prove successful, a second relief in time of war to serve the coast armament, which would require for all armament now mounted or projected, some 32,000 men will be unnecessary. If a reserve manning relief can be omitted in time of war, many millions for pay of personnel will be saved.

" 'If, as is hoped for, provision will soon be made for an adequate trained personnel to operate the torpedo defense of our fortified harbors, such action will do much to modify the gun armaments to complete the general defense.

" 'The most important development increasing the efficiency of the coast defense has been the tactical co-ordination of all the elements of coast defense under one direction to an extent that in earlier days was not foreseen.' General Story thinks that the estimates of the Endicott Board for coast defenses can be reduced by about $30,000,000.

"The following order of the President is published for the information of all concerned:

"THE WHITE HOUSE, Jan. 12, 1905.

"A board to consist of the Secretary of War, and the officers hereinafter named is appointed to revise the report of the Endicott Board, which was appointed under the provision of an act of Congress, approved March 3, 1885, to 'examine and report at what ports fortifications, or other defenses, are most urgently required, character and kind of defenses best adapted for each, with reference to armament,' and 'the utilization of torpedoes, mines, or other defensive appliances,' with further instruction to extend its examinations so as to include estimates and recommendations relative to defenses of the insular possessions.

"The report of the Endicott Board, submitted nineteen years ago, was carefully considered by its distinguished members. It enunciated sound military principles and recommended the best application of these principles with the conditions then existing. It fully deserved the generous support it has received from Congress. Nearly two-thirds of the land armament recommended by the board has been installed or provided for, but since the date of the report so many conditions then existing have been materially modified, and the engines or implements of war have been so greatly improved, and others, untried

or unknown, of undoubted value developed, giving a greater advantage to the defense, that it is confidently believed our harbor defense can be completed effectively and satisfactorily with a much less expenditure of money than has been heretofore estimated. With this object in view the board will recommend the armament fixed and floating, mobile torpedoes, submarine mines and all other defensive appliances that may be necessary to complete the harbor defense with the most economical and advantageous expenditure of money.

"The Board will also recommend the order in which the proposed defense shall be completed, so that all the elements of harbor defense may be properly and effectively co-ordinated.

"Detail for the board: Hon. William H. Taft, Secretary of War, president of the board; Lieut. Gen Adna R. Chaffee, Chief of Staff; Major Gen. G. L. Gillespie, Asst. Chief of Staff; Brig. Gen. Adolphis W. Greely, Chief Signal Officer; Brig. Gen. William Crozier, Chief of Ordnance; Brig. Gen. John P. Story, Chief of Artillery, General Staff; Brig. Gen. Alexander Mackenzie, Chief of Engineers, and Major George W. Goethals, General Staff, recorder.

"(Signed) THEODORE ROOSEVELT."

The *third* article, by Professor Philip R. Alger, U. S. Navy, is a classic, and requires careful study. His conclusions are of great importance to the Navy, the Ordnance Department and the Artillery.

WARSHIPS.

1. A Naval Comparison.—*A. and N. Reg.*, Nov. 26.
2. The Russian Baltic Ships.—*Same*, Nov. 19.
3. Report of Chief of Bureau of Navigation.—*Same*, Nov. 26.
4. Supremacy of the Battleship.—*A. and N. Jour.*, Jan. 7.
5. The Past Naval Year.—*Unit. Serv. Mag.*, Jan.
6. The Conning Tower on Board Battleships.—*Mar. Rund.*, Jan.
7. Distribution and Mobilization of the Fleet (Great Britain).—*Same.*
8. Changes in the World's Navies.—*Proc. Nav. Inst.*, Dec.; *Mar. Rund.*, Jan.

The *first* of these furnishes some interesting data:

"While the only actual test of the comparative strength of navies is in actual conflict, the naval construction of the world has been done on similar lines, so that any group of ships of about the same tonnage and built within a few years of each other will have similar charac-

teristics and may be regarded as similar ships, notwithstanding that they may be of different nationalities. While the number of ships possessed by individual nations does not necessarily indicate the naval strength, the total of the tonnage of navies may be used to a certain degree in making a general comparison, since with tonnage has generally gone comparative battery strength or engine power, so that effectiveness has to some degree coincided with size. The weakness of comparisons by total tonnage is in that no account is taken of the age of ships. The rapid deterioration of armored vessels, due largely to the progress of naval construction and the building of improved ships which place those of a former date in the background, makes this weakness in a close comparison possibly misleading since it gives equal weight to tonnage of old construction with that of new.

"On this schedule of marks, the efficiency of the navies of England, France, Germany and the United States is indicated as follows:

	Marks.				Percentage.			
	Eng.	Fr.	Ger.	U. S.	Eng.	Fr.	Ger.	U. S.
Battleships	883	413	407	371	42.5	19.8	19.6	17.8
Ar. Cruisers	465	233	85	175	48.5	24.3	8.8	18.2
Monitors	...	26	...	20	...	46.4	17.8	35.7
Cruising Ships	600	182	127	143	57.0	17.3	12.0	13.5
Total strength..	1,948	854	619	709	47.0	20.6	14.9	17.1

"That is to say that the navies of these nations rank as follows: England first, having 47 per cent. of the total strength; France second, with 20.6 per cent.; the United States third, with 17.1 per cent., and Germany fourth, with 14.9 per cent. The enumeration given includes ships built and building for the reason that there is a daily access of strength in the construction yards and even the authorization of construction when actually effected begins to add at once to the strength since the preparation of plans is no small part of the actual work of construction.

"To complete the comparison of naval strength it is necessary to take into account the provision of torpedo craft. There is no rule by which torpedo vessels can be accounted as equivalent to a given amount of tonnage in other fighting ships and they must be considered as a separate class. The comparison of torpedo craft is as follows, the actual number of boats in each case being given:

Comparison of Torpedo Craft.

Destroyers	146	41	53	16
Seagoing	...	43	..	..
1st Class T. B.	120	85	95	36
2d Class T. B.	66	70	..	..
3d Class T. B.	...	22	..	..
Submarines	11	47	8	8
	343	308	156	60

"The comparison needs no further analysis as it is evident that the number of destroyers places England's strength considerably in the lead of that of France, whose miscellaneous torpedo outfit would probably show higher efficiency than that of Germany, although the French submarines and submersibles are an uncertain quantity, while the United States is wholly outclassed."

The *second* is an illustrated article on the ships forming part of the *Second Pacific Squadron* of the Russians, now on their way to the Far East.

The *third* has been referred to under *Organization,* etc.

The *fourth* article contains some deductions from the Russo-Japanese War:

"The overshadowing importance of the battleship is nowhere more appreciated than in Japan. Had they had at the outset twelve, or even ten, battleships instead of six, the Russian fleet would have been destroyed on August 10—the supreme incentive to holding out at Port Arthur being thus removed, that fortress would probably have fallen, the war correspondingly advanced and thousands of lives and millions of treasure saved. Threatened now by the Russian second Pacific fleet, it is safe to say that they would gladly recover at several times their cost the Hatsuse and the Yashima (if so be it that the uncontradicted reports of the latter's loss be true); for well do they know that the loss of the command of the sea would mean the end of the campaign in Manchuria. Likewise gladly would the Russians buy back the Petropavlosk, sunk in the same manner as the two Japanese—by mines skilfully planted by the enemy.

"In summing up the lessons of the war one cannot do so more accurately or felicitously than was done by Lord Selborne, First Lord of the British Admiralty, in the following words:

"'The lessons from the war in the Far East are the importance of the personnel, the necessity for having a margin of strength, and the fact that without battleships no power can hold or win command of the sea.'"

The *fifth* article is a summary of the present condition of the principal navies:

"The Mediterranean Fleet, which at present consists of twelve battleships, is to be reduced to eight, and will be a perfectly homogeneous squadron of ships of the *London* class. The fleet will remain based as at present—on Malta. Of late years that dock-yard has been quite unable to cope with the amount of work thrown upon it by the presence of so large a number of ships up the Straits, but it ought to be in a position to maintain the reduced fleet in a perfectly efficient condition, and all the repairs to the fleet are to be carried out there. According to the new arrangements, only one battleship will be detached from the fleet and in the dockyard's hands at a time. The fleet will be commanded, like the Channel, by an admiral, or flag-officer with the acting rank of one, while his second-in-command will be a vice-admiral, with a rear-admiral in command of the cruiser division.

"We now come to an important change, rendered possible by the approaching completion of the new docks and dockyard at Gibraltar. The old Channel Fleet, for the future to be known as the Atlantic Fleet, is to be permanently based on Gibraltar, which now takes its proper place as a naval base of the first importance, and all the repairs to the ships will be carried out at the new yard, which for the last two years has been under the charge of a Rear Admiral. The fleet will consist, as at present, of eight battleships, with its attendant cruisers, and as with the Mediterranean Fleet, only one battleship at a time will be allowed to be detached for repairs. The Atlantic Fleet thus occupies a central position between the Channel and Mediterranean Fleets, and can reinforce either without delay, as may be required. It will be commanded by a vice-admiral, or a flag-officer holding the acting rank as such, with a rear-admiral as his second-in-command.

"Coming now to the other great naval powers, we naturally continue to give the place next after ourselves to France. It is pretty certain, however, that unless she makes greater efforts than at present to maintain her position, she will soon have to give way to both the United States and Germany.

"Germany still pursues her course of steady progress; the quota of the building programme sanctioned by the Reichstag in 1899, and amended in 1900, by which the fleet by 1917 is to be raised to a strength of 38 battleships, 14 armoured cruisers, and 38 small cruisers, is completed each year with unfailing regularity, and 1904 is no exception to the rule. Built and building, Germany now possesses 22 first-class battleships, 7 armored cruisers, and 52 destroyers.

"It will be noticed that Germany is singularly short in cruisers, as compared with battleships, but the authorities are still keeping to their policy of providing a formidable battle fleet first, leaving the cruisers until later.

"Built and building, the United States have now no fewer than 26 first-class battleships, where 15 years ago they did not possess one; 15 armored cruisers, 26 destroyers, and 15 submarines, and there is no doubt that a still larger programme is in contemplation. The weak point about the new American Navy is unquestionably a lack of well-trained men; the American is not by nature a seaman, still, in due course, a *personnel* equal to the rapidly increasing *matériel* of the fleet will be called into being, some system of long-service training such as obtains in our own Navy being adopted. Jealous as the Germans are of English sea-power, there is no doubt that they view with still profounder dislike and suspicion the rapid increase of the United States Navy, which bids fair, in a few years' time, to throw their own completely in the shade.

"In regard to both Russia and Japan, while the war is still in progress it is rather futile to draw up any comparison in regard to the strength of either Power. As this goes to press, we have the news of the destruction of the last battleship of the fine fleet in the Far East which Russia possessed on the eve of the great struggle. The wiping out of this fleet by the numerically inferior one of Japan will remain one of the most notable achievements in the annals of naval warfare. The want of enterprise on the part of the Russian admirals—for even the ill-fated Makaroff, with his high reputation, attempted nothing—is the more astonishing when one considers how all-important it was to inflict as much damage as possible on the Japanese Fleet, which could not be reinforced, so as to give their own reinforcements a chance of wresting the command of the sea from a weakened enemy. When one remembers the plucky, but hopeless dash for freedom of the gallant Cervera, in face of the overwhelming odds against him of the powerful United States Fleet, it is impossible to deny that the Russian commanders have shown

themselves wanting in all the qualities which go to make up a successful naval leader. At the battle of the 10th August, the strength of the two fleets was not so very unequal, and, skilfully handled, the Russian ships might have inflicted heavy losses and damage on their enemy, which could not have been made good before the arrival of the Baltic Fleet. Equally unsatisfactory was the behavior of the Vladivostock Cruiser Squadron in their action with Kamimura's Fleet. Should the war continue for two or three years, it might be possible for Russia to regain the command of the seas, for, independent of the five first-class battleships of the so-called Baltic Fleet, Russia has building at St. Petersburg four 16,000-ton battleships, in addition to the Slava, a sister ship to the four vessels now *en route* to the East, besides several large cruisers."

SMALL ARMS AND EQUIPMENTS.

1. The Rod Bayonet.—*A. and N. Jour.*, Jan. 14.
2. Uniform of the U. S. Army.—*Same.*
3. A New System of Rifle Sighting.—*A. and N. Gaz.*, Dec. 31.
4. Report of Chief of Ordnance.—*A. and N. Reg.*, Nov. 19.

The *first* article is one of great importance just now, and the war in the Far East seems to indicate that our new rifle must have a good bayonet:

"Major William P. Evans, Military Secretary's Department, U. S. A., in an article in the Journal of the United States Infantry Association, takes the ground that the rod bayonet is an inferior implement and should be discarded. He declares that it is neither a very good ram-rod nor a very good bayonet, but a compromise which has caused serious misgivings as to the efficiency of our Infantry armament. He points out that the new Springfield rifle is much shorter than the Service rifles of the armies of England, France, Russia, Germany and Japan, and that inasmuch as it is asserted that the war in Manchuria has shown that in many cases the bayonet still determines the issue of combat, the advantage in close fighting must rest with the troops armed with the superior bayonet. "Many of us," says Major Evans, "are of the opinion that we should not have departed from the old Springfield bayonet which was designed for but one purpose, that of disabling the enemy. Let us get back to the bayonet pure and simple, and let it be the best for the specific purpose for which a bayonet is needed. It will then be none too good. If we want a ram-rod let us have a ram-rod. If we want an intrench-

ing tool or a knife let us have it, but let us not sacrifice the bayonet by compromise to meet the conditions which require other arms or tools" Major Evans's utterances on this subject are heartily approved by many Infantry officers of long experience."

The *second* article contains the order prescribing the new uniform. The constant changing of the *sword knot* by the officers of a garrison is still a matter of discontent.

The *third* involves some new ideas on sights for infantry rifles:

"Dr. Fritz Schanz, who is an opthalmic surgeon in Dresden, proposes an entirely new system of sighting rifles, which he claims possesses special advantages for use, both by day and night. Recognizing that with the ordinary system it is necessary for the eye to accommodate itself to the distance between the fore-sight and the back-sight, his object is to reduce very greatly the dispersion circle, so that both sights may be very sharply defined. With this object he reverses the position of the two sights, the "fore-sight" being placed at the rear, and the "back-sight" at the fore-end of the barrel. The latter has a reflecting mirror of small dimensions attached to it, turned towards the marksman, whose aiming eye looks at this mirror and sees in it the reflection of the sight at the rear end of the barrel. The arrangement is such that the reflection can be aligned with the target in one point, so that the notch of the reflecting sight at the fore end of the barrel, the sight at the rear end, and the object aimed at coincide. The point, therefore, to which the eye has to accommodate itself is the sight at the fore end of the barrel, the other sight being seen through the reflection in the mirror. This is the salient feature of the arrangement, and is said to facilitate very sharp sighting. For use at night both sights are made visible, so that a considerable advantage is claimed over the present system. We can express no opinion on the actual merits of Dr. Schanz's system, not having seen it applied, but we think it worth while to draw attention to it here. A doubt is suggested as to what might be the effect of rain or a condensation of moisture on the mirror of the reflecting sight."

The *fourth* article is one of the strangest reports of the year; as regards small arms we quote a short statement:

"United States magazine rifle, model of 1903.—Immediately upon the approval by the Secretary of War, on June 19, 1903, of the adoption and manufacture of this arm, instructions were given to the commanding officer of Springfield Armory to make the necessary

fixtures, tools, gauges, templets, etc., for the manufacture at that armory of 400 arms per day of eight hours and for the manufacture at Rock Island Arsenal of 125 arms per day of eight hours. Sufficient fixtures, gauges, etc., were completed in the early part of the present calendar year to enable a daily output of 300 rifles to be obtained at the Springfield Armory, which output, it is anticipated, will be increased by November 1, 1904, to 400 per day. The greater part of the fixtures, gauges, etc., for the Rock Island Arsenal have been completed and installed, and the manufacture of rifles has begun. It is anticipated that a regular daily output of 125 arms will be obtained at the latter plant before June 30 next.

"Upon the approval of the chief of staff, U. S. Army, the corps of cadets, U. S. Military Academy, West Point, N. Y., was equipped with the new rifle on March 23, 1904. As the cartridge for the new is different from that of the old rifle, it has been decided to make no other issues of the former arm, except in Alaska, China, and the Philippines, until a sufficient number have been completed to enable the entire Regular Army to be equipped at the same time It is anticipated that this exchange of arms can be made in January next"

MEANS OF COMMUNICATION.

1. The Signal Corps in Alaska.—*A. and N. Reg.*, Nov. 26.

2. Report of the Chief Signal Officer.—*Same*, Nov. 19; *A. and N. Jour.*, Nov. 19.

The *first* of these articles is an interesting account of the work of our Signal Corps in laying the Alaska cable:

"The seamless rubber cable between Seattle and Sitka, 1,070 miles in length, and laid in an average depth of 1,000 fathoms and in an extreme depth of 1,700 fathoms, was put down by the Burnside last summer under direction of Colonel James Allen and Major Edgar Russel of the signal corps of the Army. One hundred and forty miles of the cable were laid southward from Sitka and the end buoyed in 600 fathoms to await the procurement of the remainder of the cable from Seattle, and when the remaining part of the cable was obtained the buoyed end was picked up and joined to that on board the Burnside.

"The Alaskan telegraph system required work unique in the annals of telegraphic engineering, whether one considers the immense extent of territory, its remoteness from the United States, the winter inaccessibility of the regions, the severity of the climate, the unin-

habited and trackless districts, or the adverse physical conditions. If plotted on a map of the United States, this system would reach from Wyoming to the Bahamas off the coast of Florida. The cable used would reach from Newfoundland to Ireland, and the land lines from Washington to Texas. Its totality comprises elements not elsewhere combined in a single system—submarine, land, and wireless methods, all worked as one component and harmonious system. The entire construction of 3,625 miles includes not only 2,079 miles of cable and 1,439 miles of land lines, but also a wireless system of 107 miles.

"The United States has brought southeastern Alaska, the Yukon Valley, and the Bering Straits region into telegraphic communication with the rest of the civilized world. There yet lacks to complete the dream of a half-century since, of telegraphically uniting America and Asia via Bering Strait, a cable to the Asiatic shore and a Russian land line of about 1,500 miles to Nikolaevisk.

"The signal corps wireless station at Nome could communicate with a similar station on the Kamchatka coast, but the infertile and sparsely inhabited country thence to the nearest Russian station of Nikolaevisk renders any such enterprise unlikely.

"It is important to note that the completion of the Alaskan lines perfects the military intercommunicating system of the United States. The President or the Secretary of War can now reach, over strictly American lines of telegraph or cable, every important military command from the icy waters of Bering Strait to the tropical seas of the Sulu Archipelago, with the exception of the legation guard at Pekin.

In the late summer of 1903 the Norton Sound bases were established. At Safety Harbor and St. Michael there were built portable houses, in which were installed engines, batteries, and wireless instruments, supplemented by two masts at each station 210 feet high, between which are suspended fan-shaped antennae, consisting of 125 copper wires 1 foot apart. The motor power consists of a 5-horsepower gasoline engine and a 3-kilowatt motor dynamo, 60-cycle alternator. At each station in a transformer "stepping up" from 500 to 20,000 volts, and at the other "stepping up" from 500 to 25,000.

"These poles, the highest ever erected on the Pacific coast, and antennae were installed through the resourcefulness and professional skill of Mr. R. D. Ross, a civil engineer employed for this purpose.

"On August 17 the Nome section was thrown open for commercial business with the rest of the world, and the wireless section of the Alaskan telegraph system is now an everyday adjunct of the electrical appliances of the twentieth century."

The *second* article refers to the same subject, as well as the signal corps work in the Philippines:

"Brig. Gen. Adolphus W. Greely, Chief Signal Officer, U. S. A., in his report for the last fiscal year, distributes the field operations of the Signal Corps among the various headings of Alaska, the Philippines and the United States, dealing with each separately. He properly regards the work in Alaska as of first importance. The President or the Secretary of War can now reach, over strictly American lines of telegraph and cable, every important military command from the icy waters of Bering Strait to the tropical seas of the Sulu Archipelago, with the exception of the legation guard at Peking."

"The Philippine telegraph system has rendered possible an effective executive control, not only for the Army, but for the civil government. The sixteen most important islands of the archipelago are now connected by cable. On June 30, 1904, the total mileage of lines operated by the Signal Corps aggregated 2,052 land lines and 1,468 cable. It is understood that the constabulary lines on June 30 aggregated 4,203 miles, of which 172 were cable, 1,861 telegraph, and 2,170 telephone. In the city of Manilla the telegraphic and telephonic systems aggregate, on a single conductor basis, 174 miles in length, of which 123.4 are telephone. During the year 89 telephones have been installed and 52 removed. The number of calls was 291,997, an average of 745 daily. Local telephone systems for military purposes have been established at 28 Army posts and stations; they aggregate 38 miles in length and have 229 telephones in use. The net expense of maintaining the military lines in the Philippines for the year including supplies, salaries, pay, rations, clothing, etc., was $325,901.82. The same service performed by private companies at prevailing tolls, would have cost more than $480,000.

"General Greely recognizes that the Artillery Corps is the dominant factor in the operation of our sea-coast defenses and that the system of fire control installed in those works must be such as to command the approval of the great body of Artillery officers. He reiterates the opinion, however, that in addition to being a thoroughly reliable system, it should be as simple as possible, so as to be capable of satisfactory operation by the enlisted men of the Artillery Corps. It is also pointed out that while not charged with problems of designs for Artillery instruments, nor responsible for the efficient working of the system, the Signal Corps takes up the problem of electrical installation for the fire-control of posts in such manner as the Chief of Artillery deems most promising in practical results. The Chief of Ar-

tillery, and, indeed, most of the officers of the Artillery Corps, charged with the important fire-control work, take broad views of the situation. Almost invariably they simply enunciate the kind and character of work to be done and leave the solution of the electrical problems to the Signal Corps. Such methods should produce results more satisfactory and speedy than could otherwise be obtained.

"General Greely estimates that the electrical installation of the coast defenses of the United States will cost eventually in the neighborhood of $3,000,000, and when completed its annual maintenance must cost $300,000. During the past year, in addition to the maintenance of existing installations, there has been installed a modern fire-control system in the Portland Artillery District, and work commenced in the district of northern New York and of the Chesapeake.

"It is regarded by General Greely as a matter of the utmost importance that signaling apparatus of suitable character be installed at the more important of the Artillery defenses along the Atlantic and Pacific coasts to insure that efficiency and extended co-operation between the Army and the Navy.

"General Greely expresses the belief that the wireless system devised by the Signal Corps is superior in simplicity, durability, safety and reliability for Army use to any other in existence."

MILITARY GEOGRAPHY.

1. Australia in the Pacific.—*Unit. Ser. Mag.*, Jan.

MILITARY HYGIENE.

1. The Significance of Overcrowding.—*Proc. Nav. Inst.*, Dec.

EDITORIALS.

PROMOTION BY SELECTION.

Promotion by selection, in contradistinction to promotion by seniority, naturally suggests itself as proper for the navy or army, in order to advance the more deserving, and thus bring into these professions, as into others, the system of *reward of merit.*

Under the old established custom of promoting by seniority it often appears that the inefficient and indifferent are promoted as fast as the able and energetic, and ability counts for little or nothing in these two sister services.

Promotion by selection has therefore suggested itself as the natural remedy for this unsatisfactory state, and yet the question arises, has promotion by selection, as recently practiced, given any more satisfactory results (considering only the interests of the *government* for a moment) than the old method of promotion by seniority? Moreover, has not the new system given rise to a feeling of discouragement among the officers who have faithfully and efficiently performed their duties, but who have been passed over by their juniors?

Promotion by selection has in it the elements of fairness, but unless the *most* worthy be selected it is anything but fair, and in this selection lies the entire difficulty. Personal, family and political influence must enter as factors, no matter how conscientious the appointing power may be. It cannot be otherwise, unless the selection be founded on some direct and accurate test of ability, to which *all* have free access.

To select for promotion an officer comparatively low in rank, who has shown himself deserving of promotion may be fair to him, considered alone, but what is the effect on others who feel themselves equally deserving, or know

themselves more deserving? It cannot be otherwise than discouraging and disheartening.

Promotion to brigadier general (or higher rank) has always been by selection, but by selection from the next lower rank only. If our army is so constituted that officers are allowed to reach the rank of colonel and yet the entire list of colonels cannot furnish the few brigadier generals required, then there is something radically wrong in our whole system of promotion below that grade, and our inspections are a farce.

None of the world's great armies have the system of promotion by selection as we practice it; that is, by the sudden advancement of an officer to a rank several grades above his present rank. The Continental armies, except Russia, have a system by which deserving officers obtain a slightly faster *rate* of promotion from grade to grade, than the average, but that is all, and only affects promotion up to the grade of major.

In Russia, however, promotion by selection, especially in the higher grades, is very common. And what has been the result? Personal, family and political influence have placed many unworthy and inefficient officers in the higher commands.

In the interests of the government, one of the objects of promotion by selection has been to have a few *young* and energetic officers in the higher grades. This is undoubtedly to be desired if it will produce the results anticipated, and the latter have no deleterious effects on the service. But these effects are often very serious.

The world's great armies are no criterion for us, but they and their systems of promotion are the result of long experience, and they are therefore worthy of consideration and study. In the German army promotion is, in general, by seniority, but the General Staff has a faster rate of promotion than the rest of the army, and that is the source of their young and energetic regimental and higher commanders. Every officer who has the recommendation of his immediate superiors, can go up for the examination to the War College, and if he graduates with a rating of *excellent*, and serves practically in the General Staff for two years to prove his efficiency, he enters that corps and has the advantage of the

more rapid promotion, which is therefore entirely fair.

Our own General Staff, selected as it is with as little favoritism as is possible under any human system, would thus furnish a means of rewarding merit in a spirit of fairness not possible by any other method yet devised. In any system that may be adopted the good of the whole should be duly considered, and not only the good of the individual. The object should be to improve the services and not merely to reward individuals.

SERVICE SALAD.

Readers of the "United Service" are cordially invited to contribute to this department items of either fact or fancy, grave or gay, instructive or only entertaining; in short, any literary flotsam and jetsam likely to interest our subscribers.

Rear Admiral Albert S. Barker was retired from active duty in the Navy on March 31, under the operation of the law retiring naval officers at the age of sixty-two. On that date he hauled down his flag as commander-in-chief of the North Atlantic squadron, and took his place on the retired list. Admiral Barker closed his active career with the respect of all men connected with the service. He has been an admirable commander-in-chief, requiring prompt and efficient service from his subordinates, and getting it because they felt that he was competent and fair. No officer in the United States Navy ever administered rebukes or ordered courts-martial with greater reluctance, nor has any Admiral been more hearty in his commendation of good work performed. Every admirer of the American Navy can but feel proud of the career of this eminent officer, a career that is a splendid example for the younger officers in the service.

The new edition of Webster's Unabridged Dictionary is a noble volume, comprehensive, authentic and thoroughly satisfactory. This is an American book of reference, printed by an American house and edited and revised by American scholars. Of course, the book is indispensable in editorial offices and should be within easy reach of every parent and teacher. It will certainly prove an ever-present help in the time of troublesome questions.

THE SONG OF THE RETREATING RUSSIAN ARMIES.

From the Boston Evening Transcript.

We're marching on to freedom, in the dark before the dawning;
The shells are bursting round us, and the shrapnel shriek on high.
We're marching on to freedom, thro' the black and bloody morning;
A crimson thread is in the east and creeps across the sky.

We're hopelessly defeated; let the joyous news be shouted.
Our armies are in full retreat and soon we shall be free.
Outfought and outmaneuvered, outflanked and raked and routed,
Three hundred thousand beaten men are singing like the sea.

Our forces fill the valleys full; the plain is overflowing;
Our bayonets clothe the trampled earth like fields of sloping corn.
Above the distant mountain tops the light is slowly growing,
A scarlet cord is in the east and soon it will be morn.

O grave, where is thy victory? O death, where is thy stinging?
We die that Russia may be free; we lose that she may gain.
There's blood upon the road we take; but still we take it singing.
Our triumph is in our defeat, our glory in our pain.

We're marching on to freedom thro' the blood-red light of morning;
The cannon roar behind us and the dead are falling fast.
You can see our patient faces, in the crimson of the dawning;
We've suffered thro' the weary night, but day has come at last.

For we're beaten — beaten — beaten!
Let the joyous news be shouted;
We've lost the tyrant's battle now, and soon we shall be free.
Wronged, robbed, oppressed, tormented, imprisoned, exiled, knouted,
A hundred million Russian Slavs are rising like the sea.

—BERTRAND SHADWELL.

BOOK REVIEWS.

Syllabus of Davis' International Law. By C. A. Seaone, Third U. S. Cavalry, Kansas City, Mo. Hudson-Kimberly Publishing Co., 1904.

This little book of 127 pages is a compendium of the original, arranged for ready reference to the latter by chapters and pages.

The subject of *Internationl Law* is of such importance to our officers to-day, that every one of us should review it at least once a year. After such review, this little syllabus will be found to serve the purpose of an abridgment, and the entire subject matter can be readily fixed in the mind by its use.

Its real purpose, of course, is to assist the officer preparing for *examination,* either at the conclusion of the course of study at the post schools, or to determine an officer's fitness for promotion. In either case it will be found excellent as a means of testing one's knowledge of the subject, and to perfect one's knowledge therein.

The author's experience at the *General Service and Staff College* has also been of use in preparing this volume.

The little volume is well arranged, and should be found extremely useful by all company officers.

J. P. W.

Estimating Distance Tables. By Captain Edwin Bell, 8th U. S. Infantry, Kansas City, Mo. Franklin Hudson Publishing Co., 1904.

This convenient little volume is designed to relieve the company commander from the tedious work of calculating in each case the credit to be given to a soldier in the very useful exercise of estimating distances.

Under Paragraph 2, Part II., of General Orders No. 20, Adjutant General's Office, Washington, February 26, 1903, errors less than certain prescribed percentages must be made for proficiency as sharpshooter, marksman, first classmen or second classmen.

By means of this little book the percentage of error is quickly determined. The tables are so arranged that, knowing the actual distance and the estimated distance, the percentage of error is read off at a glance. Any non-commissioned officer or intelligent private can readily learn to use the tables, and the company commander can thus be relieved of the tedious work of calculating in each case, and can devote his attention more directly to the work in hand, which will enable him to carry

on the latter more expeditiously, and hence do more of it in the drill hour, without wearing delays.

It should prove a very useful book to every company commander.

J. P. W.

Military Government and Martial Law. By William E. Birkhimer, LL. B., major, General Staff, U. S. Army. Second Edition, revised, Kansas City, Mo. Franklin Hudson Publishing Co., London. Kegan Paul, French, Trübner & Co., Ltd., 1904.

The work of Major Birkhimer, General Staff, the result of some twenty years of study in this particular field of legal science, is practically *the* authority on the subject for the Anglo-Saxon countries. Previous writers, as well as members of the legal profession of all grades of rank, had always approached the subject with considerable hesitation, in their writings as well as in giving their legal opinions and decisions, and the literature relating thereto was consequently indefinite and limited.

As Judge-Advocate of the Department of Columbia in 1886, then commanded by Brigadier-General John Gibbon, Major Birkhimer was compelled to take up the study of this special branch of law, on account of the existing conditions.

The anti-Chinese riots had broken out, and the Governor of (then) Washington Territory had called upon the President for assistance. General Gibbon took the 14th Infantry to Seattle, and the Governor declared martial law there. We happened to be on General Gibbon's personal staff at the time, and were with him during these trying times. On the restoration of peace and the return of the troops to their proper stations, both the Governor and General Gibbon were proceeded against in the civil courts for illegal violation of the rights of certain citizens. At this point Major Birkhimer took up the subject in defense of his commanding officer. His investigations led him to go deeper into the subject, and being naturally of a fearless disposition, he soon (in 1892) produced the first reliable and thorough treatise on the subject, which at once took its place as an accepted authority. That was the first edition of the present work.

Meanwhile, Great Britain and the United States have both had occasion to inaugurate and enforce military government on an extensive scale and under varied circumstances, the former in South Africa and the latter in Cuba, Porto Rico, and the Philippines. On a smaller scale, several of the States also recently declared martial law, for example, Idaho, in 1899, Pennsylvania, in 1902, and Colorado in 1903-4; and in 1894 the general government sent troops to Chicago to quell riots which interfered with the U. S. mails. All these cases the author followed in the courts with great care, and the results are embodied in the present edition.

The work is divided into two parts, Military Government and Martial Law. After a brief introduction on the origin of the powers of the government to institute either of these, the author takes up their discussion separately.

Under *Military Government* he considers the power to declare war, the right to establish military government, the extent of the territory affected and its effect on the inhabitants and on private and public property, as well as the responsibilities of commanders.

Under *Martial Law*, after discussing the distinction between it and

military law, he considers its theory in England and in the United States, and then discusses its nature and necessity, as well as its authority and administration, and the responsibility of commanders.

The work has met the approval of the Judge-Advocate General of the Army, in terms which admit of no misinterpretation. He states that it is "the most complete treatise on the subject in the English language, and embodies the views which prevail in Anglo-Saxon countries on the subject," and adds that in his official duties he has constant occasion to refer to it.

It is a work which should be in the hands of every Navy and Army officer, since the occasions requiring its use are apt to arise unexpectedly, and the prompt action required leaves little time for preparation or consultation, the officer being, in general, suddenly thrown on his own resources.

The publishers have done their part well. The printing, paper and binding leave nothing to be desired.

An excellent index adds to the convenience of using and consulting the volume.

There is probably no more important or difficult duty, which an officer of either service is called upon to perform than that of enforcing military or martial law, under the conditions here considered, and yet there is hardly an officer of more than a few years of service who has not been compelled to take part in such work. It is never an agreeable duty, and requires the assumption of great responsibilities. A full knowledge of the legas aspect of the subject is, therefore, of vast importance to the government as well as to the officer. The present work furnishes that, and should contribute greatly to inspiring confidence in the officer and promoting good administration in the territory affected.

J. P. W.

The Auxiliary Officer's Hand Book. By Captain R. F. Legge, Aldershot. Gale and Polden, Ltd. (Price Three-and-sixpence), 1904.

This little volume, as Field-Marshal Viscount Wolseley says in his introduction to it, "is full of useful military information."

Although prepared especially for the officers of the British Auxiliary Forces, it has much that will be of use to any service, and to any class of officers.

For example, Part I. is entirely general in character, and treats of Discipline, Training, Maneuvers, Marching, the elements of tactics, and the service of security and information.

Part II. is also largely of general interest, and includes Field Firing, the framing of Orders, the War Game and Field Sketching.

Part III. alone is applicable only to officers of the Auxiliary Forces.

In the chapter on Signaling, besides the Morse code, the English Semaphore code is given, which has many advantages for short distance signalling, such as that between ships of a squadron when very near each other, between ships and forts under the same conditions, and between different parts of a fort.

The volume is well printed, and neatly bound, and constitutes a useful and convenient little hand-book for any young officer.

J. P. W.

"Whosoever Shall Offend" is the striking title of the latest of Marion Crawford's charming stories of Italy and the Italians. The book is pub-

lished by the Macmillan Company, New York and London.

Tactics for Beginners. By Major C. M. De Gruyther. Third edition. Aldershot: Gale & Polden, Ltd., 1904. (Six shillings.)

This excellent work by the late instructor in tactics at the Royal Military College, Camberley, England, has taken its place as the accepted authority on the subject in England. It is now in its *third* edition, and well deserves to be. Its simple, straightforward language and its intrinsic worth combine to make it acceptable to military men of all ranks and ages.

It has been kept fully abreast of the times, and the present edition touches even on the lessons of the Russo-Japanese War. Moreover, the author has fully appreciated the progress made in the art of war during our civil war, which is rarely the case among European writers on military subjects.

For example, in the new chapter, entitled "The Evolution of Tactics Since 1866," he says:

"The Prussians (in 1866) were far behind the methods used by the Confederates in the American civil war, 1861-64, as regards a cavalry screen and the use of horse artillery in front."

And again: "On several occasions (in 1870) the value of cover was not recognized, and ground was not utilized to the best advantage. The precaution of strengthening positions by means of field intrenchments was frequently neglected, notwithstanding the fact that the American civil war of 1861-64 had clearly established their value."

In the article on the tactics to be employed in *woods,* he says:

"The campaign of 1864 in Virginia was fought in a densely wooded country, yet we never read of the attacking infantry losing all tactical unity, as the Russians did in the instances quoted above (Spicheren, Gravelotte)."

And, again:

"In the American Civil War both sides invariably fortified their positions when fighting in woods."

Finally:

"But cavalry trained to fight on foot, like the American cavalry in 1864, are very useful."

These quotations show that the author had learned practically all the important lessons of our Civil War, and fully appreciated the progress in the art of war which had been made at that time.

In general character the contents of this work resemble those of Shaw's *Elements of Tactics,* but the treatment of each subject is broader and in that respect the work resembles more the continental manuals on tactics.

The contents comprise Time and Space relations of bodies of troops, Outposts, Marches, Advance and Rear Guards Reports, Reconnaissance, the Tactics of Cavalry, Artillery and Infantry, separately and combined, Orders, Night Operations, and the tactical effect of woods, villages, rivers and defiles, together with a chapter on Convoys and another on Savage Warfare, and, finally, an entirely new chapter on the Evolution of Tactics since 1866.

The last-mentioned is an excellent study and constitutes a very clear exposition of the subject. It is a valuable addition to the work.

From a very modest beginning the work has in the short space of five years, in which it has passed through three editions, grown to be a complete and satisfactory treatise, and practically became the English

standard on the subject of which it treats.

It is full of interesting examples and illustrations, rich in deductions and lessons, and fairminded and just in its statements of principles, and being so fully abreast of the times, it is particularly valuable as a work of reference for our younger as well as our older officers.

J. P. W.

Dr. Gardner W. Allen, the author of "Our Navy and the Barbary Corsairs," was born at Bangor, Me., in 1856; was graduated at Harvard College with the class of 1877, and at the Harvard Medical School in 1882. He is a member of the American Historical Association, and has long been interested in naval history, having a large collection of books relating to this subject. During the Spanish-American War he was a volunteer medical officer in our navy. It has been a matter of surprise to him that the interesting and romantic period of our history which his book covers has been to such a degree neglected. The recent experiences of several of our citizens in Morocco have brought freshly before us the sort of people who ensalved and terrorized our early seamen. The bandit chief, Raissuli, is doubtless a descendant of the Barbary Corsairs. It was in fighting the pirates of the Mediterranean that many of our early naval commanders obtained the training which enabled them, a few years later, to win glory in their unequal contest with the overwhelming navy of England. So little has been previously written upon this subject that Dr. Allen has found it necessary to explore the original records for many of the details. The various events scattered over a period of about forty years are brought together in his interesting history.

The book is published by Houghton, Mifflin & Co. of Boston. Price, $1.50.

ELECTRIC REVOLUTION.

In an article under the above heading, the *Daily Chronicle* of London, England, in a recent issue says:

"The North-Eastern at Newcastle, and the Lancashire and Yorkshire at Manchester, have now local electric lines in operation; but if we want the best stimulative object-lesson for the main railways around London, we must go to New York, where the New York Central & Hudson River Railroad Company—the premier line of the United States—is now carrying out the electrification of all its suburban New York lines for a distance of thirty-five miles.

This scheme is intended to demonstrate several things. First, the enormous advantage to the public of the abolition of steam railways in cities. Second, the immeasurably quicker service, and the provision of more trains. Third, the application of electricity to main-line trains, "limiteds," "expresses," and "fliers," within the area of electrification. This is the first attempt made to apply electricity to trains one-quarter of a mile in length, weighing as much as 900 tons, and traveling at a speed exceeding sixty miles an hour.

From five to seven hundred trains enter the Grand Central Station in a day. The company is now rebuilding that station, although it was one of the finest in America. The new station will consist of two stories, to enable the quick handling of the traffic. The new underground suburban terminal will connect with the Rapid Transit Subway. The lines within the electrical zone will be four tracks; all grade street and track crossings will be abolished, and the suburban traffic

which pours into the city will be properly distributed at various points, to link up with other means of rapid transit. Altogether, 300 miles of single track will be electrified.

The New York Central Company hopes to reap the reward of its enterprise not only in the carrying of far more passengers under better conditions, but in the vast development of its suburban district. New York will grow rapidly in the neighborhood of these new lines. Business men will be able to travel thirty miles by the electric cars in half an hour. The higher speed, the suburban train service, the increased safety of passengers will be followed by rapid suburban growth northward, which will all add to the business of the New York Central. This successful combination of the suburban and main line traffic will also add to the company's trunk line service. It looks forward, therefore, with every confidence to the success of this enterprise on which many millions of dollars are being spent."

W. A. Boole & Son, shipbuilders, of San Francisco, have issued a brochure on the subject of the American merchant marine which is filled with interesting statistics regarding the carrying trade of the countries of the world. It is a strong picture of the insignificant number of American merchant vessels as compared with even the smallest countries of Europe. It is an interesting paper, and is an able plea in favor of Government aid to American shipping interests.

The great success of McIlhenny's Tabasco both as a relish and as a digestive agent has caused numerous imitations to be put upon the market, many of which consist simply of diluted tomato catsup heavily charged with cayenne pepper, which any physician will tell you is a dangerous irritant and should be avoided. The genuine McIlhenny's Tabasco is a most excellent corrective and aids the digestive organs in their work. Therefore, always be sure when you use Tabasco that it is McILHENNY'S—the original—in use nearly half a century by the leading hotels, restaurants and best families of the land. It gives a fine, spicy, piquant flavor to soups, roasts, fish, oysters, sauces, etc.

RICHARD WAINWRIGHT.

Richard Wainwright, Captain in the United States Navy, and well-known as the executive officer of the ill-fated "Maine," was born at Washington, D. C., in 1849, the son of Commander Richard Wainwright, who died on the Mississippi in 1862 while in command of Farragut's Flagship, the "Hartford." He entered the Naval Academy at Annapolis on the 28th of September, 1864, and graduated in 1868, his first service being as midshipman on the "Jamestown," of the Pacific fleet, in 1868-69. In the latter year he was promoted to the grade of ensign, and in 1870 was on duty in the Hydrographic Office at Washington. Promoted to master in 1870, he was ordered to the "Colorado," the flagship of the Asiatic fleet, remaining on duty at this station till 1872. His next promotion came in 1873, when he was commissioned lieutenant, and returned to the Hydrographic Office, where he was busily occupied till 1874. In 1875 he was placed in command of the "Arago," engaged in the coast-survey, and after three years of this important service was sent again to the Pacific as flag-lieutenant to Rear-Admiral T. H. Patterson, then in command of the Asiatic Station.

Lieutenant Wainwright was recalled home in 1881, and was occupied on special duty in the Bureau of Navigation till 1884, when he was ordered to the "Tennessee," of the North Atlantic Squadron, and in 1885 became secretary to Rear-Admiral J. E. Janett, commanding this squadron. His subsequent duties were with the "Galnea," of the North Atlantic squadron, 1886-87; on the Steel Inspection service, 1887-88; at the Naval Academy, 1888-90; in special service in the "Alert," 1890-93, and in the Hydrographic Office from October, 1893, to 1896. During this period, in September, 1894, he was commissioned lieutenant-commander; from 1896 to 1897, he was the chief intelligence officer; and in December, 1897, became executive officer of the battleship "Maine," then under the command of Captain Sigsbee.

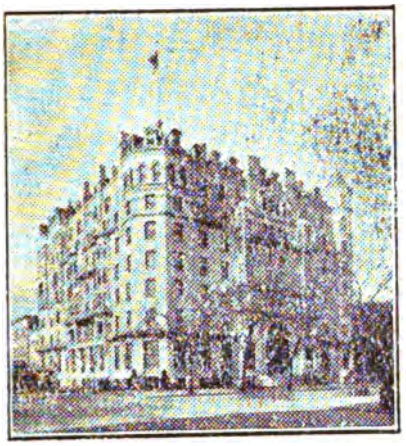
Wainwright's service in the "Maine" was an exciting one. The United States and Spain were at that time in controversy concerning the horrors of Spanish rule in Cuba, and as the safety of American residents in Havana seemed imperilled by the riotous spirit of the inhabitants, the "Maine" was ordered from Key West to Havana harbor in the last week of January, 1898. The visit was ostensibly a friendly one, but the Spaniards of Havana looked on their ironclad visitor with doubt and hostility, and on the evening of February 15, while the men were in their quarters and the captain and executive officers in their cabins, the ship was blown up by a frightful explosion, that rent the vessel asunder and killed most of the crew. Captain Sigsbee and Lieutenant-commander Wainwright, with nearly all the other officers, escaped.

The succeeding events are so well-known as scarcely to need telling. Indignation in the United States was intense and the feeling strongly warlike. A Court of Inquiry was convened, in which Wainwright was concerned, and a decision rendered that the "Maine" had been destroyed by an explosion from the outside, presumably by a submarine mine. War was now inevitable, and Lieutenant-commander Wainwright took part in it as commander of the "Gloucester," to which he was appointed in May. The "Gloucester" was a steam yacht which had been converted for the war into a gunboat, and formed a minor part of Admiral Sampson's fleet during the blockade of Santiago, in which its gallant commander was naturally eager for an opportunity to avenge the "Maine."

The opportunity came on that not-

able 3d of July, 1898, when Admiral Cervera's squadron of four fine cruisers and two torpedo boats came dashing from Santiago harbor and made a wild break for freedom. The little "Gloucester" apparently was unfit to take part in the conflict that followed, but the gallant Wainwright was not of this opinion. After the cruisers came the two torpedo-boat-destroyers, and at these the "Gloucester" was boldly driven reckless of the death-dealing weapons they bore. So driving was the attack, so crushing the fire which Wainwright poured upon them, that both boats quickly went to the bottom carrying with them more than a hundred of their men. This bold work completed, Wainwright turned the prow of the "Gloucester" down the coast, and was the first to reach the "Infanta Maria Teresa," Admiral Cervera's flag-ship, shortly after the hot fire of its pursuers had driven it ashore. In this way it happened that the commander of the little "Gloucester" had the honor to accept the surrender of the Spanish Admiral. As the crest-fallen Spaniard stepped on board the "Gloucester," Wainwright cordially saluted him and grasped his hand, saying: "I congratulate you, Admiral Cervera, upon as gallant a fight as was ever made upon the sea." He then placed his cabin at the service of Cervera and his officers, supplied him with much-needed clothing, and bade his surgeon dress the wounds of those who were hurt. In this humane way was the "Maine" revenged.

After this stirring event, which practically ended the naval history of the war, Wainwright continued in command of the "Gloucester" till November 1, when he was assigned to duty at the Naval Academy, of which he was appointed superintendent, March 15, 1900, remaining in this post till 1902. He was promoted to the rank of commander, March 3, 1899, and of captain, August 10, 1903. Since 1902 he has been in command of the cruiser "Newark."



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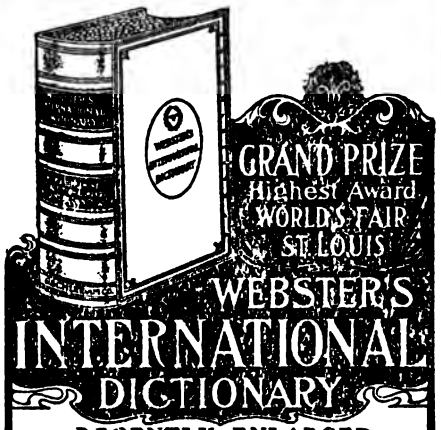

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MAY, 1905.

*INFANTRY CYCLISTS.**

BY STAFF COLONEL G. IMMENHAUSER.
(Condensed Translation by STAFF CAPTAIN A. FONJALLAZ.)

REVUE MILITAIRE SUISSE.

Translated for the General Staff by Capt. Cecil Stewart, 4th U. S. Cavalry, March, 1905.

The officer charged for a number of years with the instruction of military cyclists in our army has just published a most interesting and instructive pamphlet. It is the military history of our bicyclists and a résumé of the tests followed out from 1896 to 1903. We are thus enlightened as to the phases through which our organization and cyclist instruction have passed the road that remains to be traveled.

In the introduction, the author, after having inquired into the influence exercised by mounted infantry in a campaign like that of South Africa, proves that never before has any army but the English army decided to organize permanent troops of this kind, and that with reason. Independently of the question of expense, we have adhered to preserving for the infantryman on the one hand, and for the cavalry on the other, their peculiar qualities. The latter arm, in spite of its incontestible virtues in campaign, does not see its strength increased.

The reason is either expense, lack of available horses, the exigencies even of our army organization.

The logical consequence of this state of affairs impels seeking, aside from the horse, for means of transportation less costly though still rapid, and available in war. The bicycle answers these demands,

*This article is a résumé of a study by Staff Lieut.-Colonel G. Immenhauser, "Radfahrende Infanterie von Oberstleutnant G. Immenhauser," published as a supplement by the *Allgemeine Schweizerischen Militärzeitung*, 1904.

and organization in modern armies of combatant cyclists has in the last few years been decidedly extended. Lieutenant-Colonel Immenhauser considers that the time has come to examine the *question of the organiation of infantry cyclist units* in our country. It is not alone upon an extended theater of war like that of South Africa that greater mobility will have an important bearing. Our small army may have to hold back an adversary on one or several frontiers of our country. By the side of the mountain troops, the Alpines, charged with a special mission, we must have an infantry capable of following up the cavalry and of covering distances double or fourfold those that ordinary infantry succeed in covering. These troops will compensate for the numerical inferiority of our cavalry and will sensibly reduce the difficulties of conducting operations.

The author urges the appellation "Radfahrende Infanterie" which we believe best translated by "Infantry cyclists." He means thereby to point out that he wants no special troops, but a kind of infantry equivalent to ordinary infantry. These cyclist infantrymen should know how to shoot and march like the foot soldier. Moreover, they will be drilled and trained thoroughly in bicycling and technical knowledge of the bicycle. And we think the author is perfectly correct when he says, *"to-day cyclists, to-morrow pedestrians, but good infantry always, there is the goal."*

After this general discussion, the author gives a summary of the cyclist organizations of the bordering States.

Germany has provided experimentally and temporarily some combatant cyclist companies, but a definite organization is not yet decided upon. It is in field service that the cyclists find extended duty. They can maintain communication between several separate columns and connect the cavalry with the columns consisting of all arms in the rear. They utilize them also where the cavalry is wanting or should be spared. Finally, pioneers often perform their duty using the bicycle.

Austria-Hungary has on her eastern frontier no routes favorable for bicycling. It is also a well known fact that this country has been passing through a parliamentary crisis which for several years already prevents her from proceeding with changes in her military organization.

Italy equips twelve companies of bersagliere cyclists, a company to each regiment of bersagliere, that reinforce the twelve cavalry brigades.

France intends to form entire battalions of cyclists. *France Militaire* of November 11, 1903, announced that the board on expenses granting the necessary sums laid down the condition "that this credit

shall be employed exclusively for provisional organization of a first cyclist battalion."

The same board had in view transformation of chasseur battalions and cited the cases under which their use was justified, for example: To help the cavalry in its service of exploration before battle; to attack the enemy's flanks or stop troops in march during battle; to carry out attempts upon communications in the enemy's rear; to occupy on the retreat positions selected in advance, etc.

DEVELOPMENT OF BICYCLING IN SWITZERLAND.

In the special study of the development of bicycling in *Switzerland* we note that since 1891, the year in which the project was entered upon with vigor, changes have not been great. Article 3 of said project contemplated formation of subdivisions of cyclists, but the federal Assembly intended to maintain these troops exclusively for courier and orderly service. It added that for any other organization, working out of a law would be necessary. This law never came to light; they satisfied themselves with annually increasing the number of cyclists, which will perhaps in a few years allow of attaching one or two to each battalion.

They have thus given up strengthening our cavalry through cyclists in spite of the evident disproportion in strength existing between infantry and cavalry.

It must also be stated that we make but small use of bicycles and that we are greatly outstripped by our neighbors. Thus, abroad, student officers have the benefit of bicycle instruction, and it is held that an officer, lacking a horse or other means of transport, should be able to use the bicycle. With us, not only in bicycling not taught in any school, but often use of a wheel by an officer is not even tolerated.

Nowhere is it dreamed of taxing owners of heavy vehicles who make use of our roads, whilst the cyclist, military or not, is held to a tax varying from 2 to 5 per cent. of the value of his machine.

Yet in Italy we see each gendarme receive a machine; elsewhere it is the postmen and despatch bearers; our custom house employees, on the contrary, may not even during their time off duty make use of a wheel.

It is still in the army that technical questions often remain in the background. By dint of wanting to simplify and bring about everything for the rifleman, the dragoon or the artilleryman, we remain stationary. It is quite on this account that our cyclist organization has not progressed for just twelve years. Luckily this fact has had no influence upon the development of training and upon experiments

tending to seek out all that has a bearing upon bicycling. The military department has sustained the organizers along this path and the regulations contain since 1901 a chapter on special enterprises and on combat for military cyclists.

Instructors as well as line officers who for ten years have frequently been called together in the bicycle courses are to-day perfectly oriented and their opinions are in accord as to all that bears upon military bicycling and as to the model of machine to adopt. All agree in recognizing that but one model ought to be introduced, with interchangeable parts and uniform articles for refitting.

We are thus quite naturally led to speak of the machines used in our service and of the most available war model.

The law directs (article 6) that the cyclist must furnish his own machine, but the Confederation aids the soldier by enabling him to buy at reduced price a suitable machine. Two decisions of the federal Council (December 8, 1894, and March 23, 1895), grant the soldier purchasing the standard bicycle (*Normalrad*) a subsidy of 50 francs, say 14½ per cent. of the purchase price, fixed at 350 francs. At the end of five years, he can get a second machine on the same conditions, the first remaining his property.

These federal subsidies, that up to this day would have reached 50,000 francs, were not made use of. Some years after the board had fixed upon the standard model, pneumatic tires prevailed over single tubes, and it was necessary to submit to postponement to decide upon the choice of another model. It was also necessary to wait until the condition of the market had again become sensibly quieted, differences in prices between the makes being very great and the appearance of rigid and folding models having impressed on the whole problem a new character.

An annual credit of 2,500 francs was granted for purchase of school bicycles. A soldier whose machine was being repaired, temporarily received another and training did not suffer thereby.

They were able also to test the Belgian, German, French, Italian and Austrian army models and supply some squads with the different folding models.

During the period of transition, the commandant of the course of instruction had either to accept the greater part of the machines submitted or disband cyclists furnishing defective machines; the latter alternative could not, however, be applied, although among the machines thought well of by the board many were not in a state to stand service, whence repairs in great number and expenses to burden the course. The difficulties of replacement were enormous as to cer-

tain parts and pneumatic tires had to be bought one by one according to model.

The experiments with folding machines, pursued in 1902 and 1903 during nine weeks, ended in negative conclusions. The folding bicycle has two advantages: the *small diameter* of the wheel with the *small development* permit of remaining on the machine at gradients, and the *snap-hinged frame* that permits folding the machine and carrying it on the back during fighting. But these advantages are but ostensible. The rigid frame system can also admit of reduced development, and the machine carried on the man's back does not help marching much. Lying down, fire is impossible; standing, it is difficult. It is better to leave the bicycle on the ground, it less easily betrays the presence of the cyclist. The steps to be taken in folding up the bicycle in the several positions demand time; finally, the folding machine weighs two kilos more than machines with rigid frame, and for its delivery we are made dependent upon foreign factories.

The standard 1904 model, that answers all demands, is enameled black, with rigid frame, wheels of 65 cm. diameter, development of about 5 m. 50, loose wheel because of the gradients of our mountain roads. It costs, with excellent pneumatic tires, acetylene lamp and bell, at the most 240 francs, and, except the tires, can be manufactured in our country.

The standard bicycle might form part of the corps property (allowing for a change in the law) or be turned over to the man. This last method of procedure is the most advantageous as it allows of the soldier training when not on service. Furthermore, the machine may be delivered gratuitously or the cavalry system as to its horses adhered to, for generally a man will take better care of the article he pays for in part.

The statute of July 5, 1904, adopts this last principle. It does not require the soldier to buy a standard bicycle, but it fixes certain uniform dimensions for all machines employed on duty (diameter of wheels, rims, frames, development). This arrangement will help perhaps to realize the idea of a single machine. The standard bicycles besides are delivered without pneumatic tires at half total cost price, an allowance of 50 centimes per day of duty helping in settlement.

Pneumatic tires, lamps and bells will belong in future to the cyclist corps property and will no longer be provided by the man, but be turned over on entering the service and taken up on disbandment. The statute (identical with that concerning horses for the cavalry) further regulates replacing machines unsuitable for the ser-

vice, and other points of law between the Confederation and the cyclists.

As may have been observed, this statute certainly marks progress. Everything is therein simplified and will allow of making a saving when the system shall have been in operation for some years. The future will tell us if the cyclist law is the best or whether it is advisable to furnish the man his machine as the rifle to the infantryman.

PERFORMANCES OF INFANTRY CYCLISTS.

In this chapter we find a résumé of the performances or marches of our cyclists since 1896.

In 36 days' running (not consecutive), the cyclists covered about 3,900 kilometers with most often crossing of a pass obliging long distances on foot; in all, 15,500 meters of climbing, not including differences in elevation in the plains. We have thus obtained a daily performances of 108 km. 5, with 430 m. ascent. All the trips were combined with exercises in patrolling or establishing outposts or in chance encounters, which sensibly increases the daily work. The units that took part in these marches comprised from 50 to 220 men, averaging 103.

The longest runs comprised:

1 day 187 km., 750 m. ascent in 17¼ h., strength 50 men.

2 days 307 km., 580 m. ascent in 38¾ h., strength 129 men.

3 days 323 km., 1,700 m. ascent in 65½ h., strength 220 men.

4 days 320 km., 2,400 m. ascent in 87 h., strength 135 men, with 7 practices at the target.

Naturally, rain has not kept the cyclists in barracks. The author notes that often they left during a downpour, and that in the majority of runs rain fell during half the trip. Night marches also took place under the same conditions.

As to the sick, the decrease in strength, including all marching days, varied from 0 to 3 per cent.

The diminutions consequent upon damaged machines and that obliged the men to continue on foot or by rail, were considerable. In 1896 (epoch of transition from single tube to pneumatic tires), 21 per cent. in losses were counted; later, improvement was noticeable. While in some marches, even of two days, no important repairs were necessary, in others the losses attained 6 per cent. It is still quite too great. The reason is the power left the man to make use of his own machine. The day that the standard bicycle shall be decreed regulation, these losses will disappear, experience having demonstrated that only this machine is capable of withstanding the hard-

ships of a campaign. Short stops and punctures by unlucky nails will be inevitable, but at least the soldier will leave the ranks but for a short time. In all other cases, spare parts being uniform, repairs will be immediate.

Lieutenant-Colonel Immenhauser is then in the right in affirming that only the *standard bicycle* and *well-regulated duty will allow of avoiding losses on the march, excepting of course in case of circumstances beyond the cyclist's control.*

As in all arms, *close watch over* interior economy is necessary. Cyclists cannot be permitted to take the road if their machines are not in perfect order. This condition moreover exists in regard to all troops. A company equipped with standard bicycles and whose interior economy leaves nothing to be desired is equal to *any other unit and ready to take the field.*

Marches have demonstrated that a cyclist company was able daily, on the high plateau, as in the Jura, to cover from 80 to 120 km. without its power of endurance being tried. Conditions being favorable, it covers from 12 to 15 km. an hour; when otherwise, from 8 to 10. In climbing for some length of time, the cyclists push their machines and advance as rapidly as the infantry.

It was necessary, in order to be supported by numerous exact facts, still to carry out other experiments in broken regions.

In 1902, one section, after having run 54 km. while combining the march with battle exercises, continued on from Emme near Schangnau by way of Rotmoos to Schwarznegg, say 14 km. and 330 m. ascent in 3½ hours.

In the middle of October, 1903, 3 officers and 25 soldiers set out during a pouring rain at 2:45 A. M. from Nyon, reached St. Cergues at 6:15 (14 km. and 690 m. ascent). At 7 they left St. Cergues to reach Yverdon by passing through Reisse, Bassine, Pré de Bière, Brassus and Pont. But at Bassine they lost their way in the fog and rain and arrived by way of Arzière at Coppetes, 3 km. to the east of Fort Rousses. From there the party skirted the slopes of Noirmont to Brassus (arrived at 5:30 P. M.) and reached Yverdon at 10:30 in the evening, after having been 19¾ hours en route; they had covered 70 km. on their wheels and at least 42 km. on foot, more than 33 of them over the soaked soil of forest and pasture.

At the end of October, 1903, 6 officers and 78 soldiers set out at 7:45 A. M. from Pont and went by way of Places, Pré de l'Haut, Racine (1511), Pré de Bière, so as to reach Marchairuz at 1:15 P M.; from there by Bière, La Sarraz, Bavois to Yverdon, where they arrived at 8:30. This trip was made under very bad meteorological

conditions. Rain mixed with snow fell almost continually on the Places-Marchairuz run. The mountain roads to Mount Tendre were muddy, broken up by carts and overflowed, and it was necessary to march the greater part of the time across fields. The passage from Pont to Marchairuz on foot (20 km., 600 ascent, 4 km. only of them on the road) required 5½ hours, that from Marchairuz to Yverdon by Bière (53 km.), likewise 5½ hours over very bad roads and in part by night with the aid of lamps.

Taking into account the unfavorable temperature, it may be supposed that the infantry would not have been able to make such a march more rapidly than the cyclists, equipped and compelled to push their machines. Conclusion: *with the exception of marches to be made in the upper mountains, cyclists compelled to push their machines over roads or across fields perform marches equal to those of infantry equipped for war.*

INFLUENCE OF CYCLING ON THE PROBABILITY OF HITS.

In 1902, it was established that cycling had no influence upon the probability of hits. The bicyclist school of 1902 fired according to a programme agreed upon (fire at will) on the Ostermündigen ground, close by the Berne barracks. Later on 135 men of a supplementary course set out (August 15, 4 A. M.) from Berne and arrived by way of Chiètres at Fleurier (9:45 P. M.). The course covered 116 km. with an ascent of 1,240 m.; along the route field exercises had been carried out at four different places.

August 16th the company left Fleurier at 6:15 in the morning without having breakfasted and by way of Ste-Croix arrived at 8:30 at Yverdon. After breakfast, it executed from 9:30 the same firing programme as the Berne school. The march on an empty stomach had comprised 32 km. and 405 m. in difference of altitude, besides a perilous descent from Ste-Croix to Vuitteboeuf.

Comparative results for 100 shots between the two firings were as follows:

			Bicyclist school		Supplementary course		Difference between	
Range	Target	Position	Points	Hits	Points	Hits	points	& hits
300	A	Prone, no rest..	225	90.5	200	81.7	−25	−8.3
300	A	Kneeling	194	83.7	193	83	−1	−0.7
400	A	Prone, no rest..	156	72.5	148	69	−8	−3.5
300	A	Offhand	121	61.7	143	67	+22	+5.3
500	D	Kneeling, with rest	138	76.7	125	69	−13	−7.7
300	D	Prone, no rest..	154	86.2	158	87	+4	+0.8

The mean result of the six exercises fired with the short-rifle gave for 100 shots 78½ hits and 165 points for the school and 76 hits and 161 points for the supplementary course.

The 148 km. march with 1,643 m. ascent that had immediately preceded the firing and that required 29½ hours, decreased the mean result but 2½ hits and 4 points.

METHOD OF FIGHTING.

Cyclists should follow the principle of our cavalry drill regulations as to fire action, these principles naturally being based on great mobility. The fight will most often have for its end the gaining of time, where, for example, holding a defile until arrival of the main body. It might again assume the character of a surprise by fire or that of an ambuscade.

A company of 200 cyclists marching in column of twos (400 to 500 m. deep) attacked suddenly takes one minute to put all its rifles in action at the head of the column and half a minute to deploy on the flank. During these deployments a guard designated in advance protects without further orders the machines, and watches exposed parts of the terrain.

Several factors—terrain, situation, subsequent intentions—determine the place for the machines, whether under cover or in the firing line.

It will not be a question of forming extended lines of skirmishers, but rather of coming up unexpectedly, of acting by surprise and quickly, next to disappear and begin again elsewhere. The sections should be informed as to the general object of the combat and should know the general direction; it is their affair as to extricating themselves, seeking the best route, and formation safest for reaching the point whence fire will be most effective.

Thin lines of skirmishers permit the men to make use of the ground and to keep their machines in near proximity. Sections gaining a new position do so by the most favorable road, also occurrence of intervals more or less great between them must be foreseen.

Double time in advancing by rushes is possible, but can be but exceptional.

The fight will develop without regulation signals. The cyclist chiefs must have grasped the situation in time. They will give consequently clear and precise orders, all the time leaving to the subunits their task and their freedom of action.

It is within this meaning that the instructor should prepare the commanders of units.

Cyclists will often have to fight cavalry or other cyclists, therefore troops animated by a spirit of enterprise. Combat patrols will also play a part and will cover the flanks and rear during action.

Troopers are certainly more free in their movements than cyclists; the latter can only lay claim to helping the cavalry. By uniting the two forces in case of need the final result is to a great extent assured.

USE OF INFANTRY CYCLISTS IN WAR.

It became necessary to again determine by practical instances the methods of using infantry cyclists. The author takes us back to the recruit school exercises of 1902.

The strong company of 7 officers and 215 soldiers left Berne July 31st at 4:45 A. M. and arrived at 9:15 at the fork of the roads north of Zofingue, where it received the following special orders: Get ahead of a brigade of cavalry marching from Sursee to the Rhine, where patrols of the enemy have arrived. Keep free the bridges between Aarau and Olten, then the Staffelegg and Benkerjoch passes. Lastly, close the bridges over the Rhine from the mouth of the Aar to Augst.

These three tasks were successively solved. At 6 P. M. three sections were on grand guard at Laufenburg, Stein and Rheinfelden, non-commmissioned officers' posts were operating at Coblence (Aar bridge and at Augst. All these posts were connected with each other and with the reserve by a relay service. The troops provided their own supplies in the positions they were guarding and there passed the night.

August 1st, at 4:30 A. M., the company commander received notice that a body of our infantry had arrived at Laufenburg. He withdrew his section from guard and sent it to the reserve at Mumpf. At six o'clock a message by relay informed him that Rheinfelden was attacked. He set out in this direction and reached Rheinfelden at 6:50. The exercise was then interrupted and the company breakfasted.

Next it was conceded that cavalry marching from Porrentruy by Laufon on Bâle had been compelled to withdraw upon Porrentruy, its retreat covered by a cyclist company. A brigade of cavalry charged with its pursuit detaches a company of cyclists to the front to gain for it possession of the defiles. The company was sent and carried out battle exercises with both sides represented at the rocks of the Birse. At 8 P. M. it was assembled at Porrentruy.

August 2d the company, not having eaten, was ready at 5 A. M. It received orders to occupy the frontier passes from Boncourt to-

Damvent and to establish there guard detachments. The company commander placed grand guards at Boncourt, Fahy, Damvent, non-commissioned officers' posts at Bure and Grandfontaine and kept his reserve at Porrentruy. Later, having received a report that the enemy was attacking at Damvent and Fahy, the reserve was advanced to Chevenez.

Rain had fallen all night and it was still raining when the company returned to Porrentruy at 8:30.

After breakfast, it left in ordinary formation at 9:50 by Rangiers, Undervilier, Bellelay, Tavannes and Bienne for Berne, where it arrived at 10:20 P. M., accompanied all day by a torrential rain.

August 1st no one remained behind, the 2d, 6 per cent. of the men had to give it up after damage to their machines.

The expedition had lasted 65½ hours; 323 km. with 1,700 m. ascent had been passed over.

Another test of mobilization and marching was executed in 1903 by the non-commissioned officers' school.

September 28th, at 2:30, the school opened. It employed the afternoon and the first hours of the 29th in mobilizing and registering the school matériel and left Berne the same morning at 9 o'clock. In seven hours it covered 73 km. and arrived at 4 P. M. at Yverdon, say 25½ hours after entering on duty. The 50 men of the school were in perfect shape to continue the march.

The results of tests permit Lieutenant-Colonel Immenhauser to assert that a well-organized and instructed corps of cyclists, mobilized at Berne, can reach thirty-six hours after coming into service no matter what frontier opening from Nyon to Coblence. An identical result can be obtained setting out from the assembly towns of Zurich, Zoug or Lucerne for the line of frontier comprised between Coblence and Landquart; likewise for the south front. As is natural, the assembly places of cyclist units should be in the district of their division.

The *tasks* that such units would be asked to solve would be the following:

1. *Efficient support* offered the *frontier inspection* service *during and after mobilization,* a mission which should suffice to prove how indispensable are cyclist units. One can infer the activity of such detachments either in protecting the lines and public works of our territory, or in undertaking raids in hostile country.

2. *Support of the cavalry screen operating on the front.* While this arm clears the front and scouts, the cyclists can occupy and hold defiles or other important points, cover the troopers when rest-

ing, take part in the fight with their fire, cover and collect cavalry retreating, organize stations for collecting reports and transmit messages.

3. *Help protect the flanks* at great distance during battle, and thus leave the cavalry at the immediate disposition of the chief on the battlefield.

4. *Undertake expeditions* on the *flanks* and *rear* of the enemy's communications, especially at night and during fog.

5. *Support the cavalry screen* in parallel pursuit.

6. *Quickly occupy* positions selected in advance and *cover defiles* during retreat.

7. Fulfil *service of security and information* in the first place by night and on the flanks.

It is indeed upon infantry cyclists, organized in units, that all these tasks may devolve.

Time gained by these troops, capable of covering 30 kilometers in two or three hours, allows of numerous enterprises. The bicyclist advances by night without noise; in that he is superior to the trooper. He is just the man for night patrolling between outposts as also for forming advanced posts.

ARMAMENT, DRESS AND EQUIPMENT.

The short rifle, invariably carried by the cyclists, is a good arm; its small magazine without cut-off is very practical. As to kind of fire, the cyclists have adopted that which to us appears most rational and which ought to be introduced in the infantry. There is *but one* kind of fire and *but one* command. Rapidity of fire is at need decreased or increased by order: Slow fire, quick fire, rapid fire.

The service rifle cannot be carried slung over the shoulder by the cyclist. The short rifle has one ballistic disadvantage in respect to the former; at distances beyond 500 meters it is no longer equal in accuracy; so a rifle should be built possessing the desired qualities.

The *dress* should be of articles nearly like those for infantry. A jacket identical with that planned to replace the tunic would be suitable; breeches buttoning below the knee would be alike beneficial for cyclist and foot soldier.

The present forage cap is too heavy and causes headaches on long runs. If, on the other hand, the infantry adopt a lighter headdress, it would be proper to bestow it on the cyclists also, if only to prevent their being distinguished from infantry during firing. The shelter-half cannot replace the hooded cape; the latter must be retained.

The equipment does not call for special modifications. For lack of wagons, the men themselves must carry 180 rounds; 120 in the cartridge pouches and 60 in the valise. Cartridge boxes disappear, the rifle no longer being loaded a cartridge at a time. It is necessary for carrying equipment to dispose of a valise and traveling bag. The valise in use up to this day has proved its worth. It weighs 1½ kg. and its dimensions permit of its holding: underwear, ten clips, one spare ration, one pair of light shoes, maps and service note-book. Packed, it weighs 6 kg. The traveling bag answers for the second pair or breeches, toilet satchel, the second change of clothing and contingently the bread bag. It weighs, without the bread bag, 3 kg. 4 and may be carried on the back or fastened with cape and mess kit behind the saddle. A knapsack would not answer; it would interfere with carrying the rifle.

This equipment permits of cyclits passing in case of need into the infantry ranks. In winter, for example, when the bicycle could not be used, the valise would be emptied and its contents put in the traveling bag. The machines and their valises would be sent for storage to a supply station.

RECRUITING AND INSTRUCTION.

Cyclist recruits should be in good health and not suffer from a tendency to corpulency. Sight should be normal, lungs, as well as heart, healthy. The pedagogic rating enters into consideration at the time of assigning orderlies.

Training for bicyclists is given in a special school for 21 days following after a school for infantry recruits. It is clear that men already in training are necessary in order to obtain any results in this school; in 21 days, a beginner could not go through the programme without injuring his health. These reasons have compelled admittance only of recruits already capable of covering 100 km. a day. This method of recruiting cannot be to the interests of the army. It takes at time from the infantry good non-coms. or introduces in the cyclist corps elements not desirable.

In the preliminary project for military organization, the special school term for bicyclists is increased from 21 to 30 days. Instruction thereby benefits a little, but recruitment could not be modified as long as this special school is not combined with a recruit school in the infantry. As long as training of cyclist and infantryman remains distinct a minimum of 30 days must be reckoned upon for training the cyclist proper. The soldier, outside of the requirements of bicycling, 90 days needing to know the infantry drill, his instruction demands *at least* 90 *days*.

A single school uniting the present two would be in the interests of training, to the advantage of the men's health. This combination would permit enlisting cyclists still novices and who often are worth more than some racers. The young men could be trained from the beginning of the recruit school aud be given daily lessons admitting of progressive efforts. In this manner, cyclist training would not be crowded into a short period, often to the detriment of the soldier's health. Men accustomed to the wheel have still need of at least 160 hours' instruction, beginners at least 240. These 240 hours would correspond to the special school course of 30 days following the recruit school.

The proposition of Lieutenant Colonel Immenhauser, to lengthen the cyclist recruit school to 90 days, would permit giving up the special courses and introducing some solely for artificer machine repairers.

The duration of the regular and supplementary courses would correspond to those proposed in the preliminary project for the infantry. The number of supplementary courses should be equal to that of the cavalry. It does not seem advisable to establish any difference between the training of infantry cyclists and that of orderlies. It suffices to teach the organization and special drill according to the requirements of each category; likewise for map reading.

In a few words the proposition sums up thus: the cyclist recruit school has the same length as that for cavalry. Bicyclists who had not been trained in a recruit cyclist school would complete the last 30 days of that school. The number of supplementary courses would be equal to that of the cavalry.

ORGANIZATION OF INFANTRY CYCLIST UNITS.

The fighting unit is the company.—Several companies may form a battalion. Assembling the battalion will be exceptional, as companies, as a rule, should remain detached. The battalion could not act as such except in a defensive sector and instructions and orders will emanate from it only in special undertakings. Larger units would deprive cyclists of their true characteristics.

Company personnel and matériel.—The strength of cyclist orderly companies is determined according to need, that of infantry cyclist companies by conditions for maneuvering and for necessary mobility in deployments. Companies ought not to number more than 200 rifles: a less strength is even preferable. For example, we may sup-

pose 3 sections of 53 rifles, 1 captain, 4 lieutenants (one acting as officer in charge of matériel and patrols), 1 first sergeant, 1 man in charge of mess, 1 property non-com. (chief repairer), 6 sergeants, 18 corporals, 1 hospital corps man, 3 repairers, 1 automobile driver, 132 privates. A company of 200 rifles would have 4 sections, say in addition to the other: 1 lieutenant, 2 sergeants, 6 corporals, 1 repairer, 44 privates. One man per section as trumpeter will be enough. One officer and a party of noncommissioned officers and privates should be accustomed to handling explosives. Officers and hospital corps man will be the only ones not carrying a rifle.

Mobility of companies should not be hampered by any transportation; officers should reduce their baggage to the minimum. Supplies —if necessary—can be directed by telegraph to a railway station. It is only a matter, however, of canned goods, the company living on the country they traverse.

Machines or articles to be replaced can be left at a terminus and guarded by supernumeraries or home-guard cyclists.

The *fighting train* of cyclist companies may at most consist of a light auto-truck and a four-wheeled motor-cycle, containing the explosives and tools. The auto-truck would carry the tools and spare parts necessary for repairs, some pioneer implements, the medical supplies, officers' baggage and some dried vegetables. The crippled soldiers would be left with it and contingently ammunition and a few artificers to repair machines.

Battalion personnel and matériel.—The number of companies in the battalion is a matter of indifference, the companies being the units that it makes use of. The battalion commander would have at his immediate disposition: 1 adjutant, 1 aide-de-camp and 1 automobile driver. There would remain to be determined the place for the surgeons, with the battalion staff or the companies. Horses could not be made use of. Leading cyclist battalions is possible if the commanding officer employs a means of transport swifter than the bicycle, that is to say, he must have an automobile or a motor-cycle. The battalion staff automobile would carry the baggage of the officers that are attached to it. The adjutant and aide-de-camp would follow on motor-cycles.

There remains yet to be studied *formation of machine gun cyclist sections.* Machine guns with mounts and equipment, like those of fortress troops, would be carried with the ammunition on an auto-

truck, the men riding bicycles. At the desired time the machine guns would be utilized in the terrain according to the principle in force in the machine gun companies.

EXPENSES.

The author institutes a comparison between the outlay occasioned by his propositions and that contemplated by the preliminary project for the infantry and cavalry courses of training.

Equipment.—The traveling bag costs 6 fr., the valise 19 fr. 50, and the shoulder cartridge belt 8 fr. 50. In the infantry the knapsack and cartridge boxes cost 25 fr., whence a difference of 9 fr. per man.

Bicycles.—The picked soldier will use at the maximum two machines. If these are delivered at half price the expense to the State will be 200 fr.; if not, 400. In either case 10 fr. must be added for supplying lamp and bell. The excess expense amounts thus to a maximum of 210 or 410 fr. (In the latter case the 50 centimes allowance must still be deducted.)

Cost per man.—For 178 days (90 at recruit school, and 8 supplementary courses of 11 days) the increase reaches 445 fr. if the commutation for hire is paid, and 356 fr. if it is not.

Prolonging the recruit school.—School carried to 90 days and landwehr courses done away with, there still remains, in comparison with the infantry, an excess of 17 days' service; the price per man is thus 59 fr. above that of the foot soldier.

Total of excess expense for the infantry cyclist during his special service:

Personal equipment	Fr.	9		9
Machines	Fr.	210	or	410
Increased days duty	Fr.	59		59
Cost per unit	Fr.	445	or	356
Total	Fr.	723	or	834

A maximum that in fact might bear a reduction of 100 fr.

Another comparison might be instituted between the necessary cost for a dragoon and a cyclist.

Total excess of expense for the dragoon:

Uniform and personal equipment	Fr.	42
Horse equipment	Fr.	200
Horse	Fr.	3,735
Increased days of duty	Fr.	24
Difference of cost per unit	Fr.	837
Total	Fr.	4,838

This calculation gives 3,735 fr. for the horse alone. The budget for 1904 contemplates an expenditure of 2,649,351 fr. for cavalry horses, with, on the other hand, 740,500 fr. receipts, say a net expenditure of 1,908,851 fr. This sum covers a strength of 5,107 men, say 373 fr. .05 per man yearly. Service lasting 10 years, we reach this total cost of 3,735 fr.

It is sufficient to compare the differences in cost to understand that by means relatively feeble we arrive at noticeably re-enforcing our cavalry.

* * *

In a closing chapter the author, glancing backward, points out why he is anxious to show the importance of infantry cyclists. He demonstrates that from instant to instant cyclists can be transformed into infantrymen and he calls to mind the changes that should be made in armament, dress, equipment, recruiting, training and organization of cyclist infantry.

A subsequent course coinciding with the maneuvers and a new statute allowing the formation of a cyclist unit, will suffice to convince our authorities and our commanding officers of the line of the necessity for reorganization. The situation would then be faced under its true aspect and the units could be organized. At the start it would be proper to create for each division one infantry cyclist company and one cyclist orderly company. Cyclist orderlies should be organized into companies so as to assure better progress in their duties; men would remain in direct connection with their chiefs and the numerous inconveniences now manifest would be avoided.

As to the fundamental idea of organization, it should be that cyclist corps be *good infantry,* imbued, as to fire action, with the precepts of our cavalry regulations.

MARCHING RESULTS IN THE CYCLIST COURSES FROM 1896 TO 1903.

Year	Duty	Length of march		Strength in round numbers	Route Covered.	Distance, km.	Approx. ascent in m.
		Hours	Days				
1896	Rect. School	14	1	80	Bâle—Staffelegg—Aarau—Olten—Hauenstein—Bâle	112	700
1896	do.	14	1	80	Bâle—Delémont—Bellelay—Reconvilier—Moutier—Delémont—Bâle	144	700
1896	Suppy. Course	12½-14	1	80	Foregoing routes, by section. 2 other routes added	101-144	500-780
1896	do.	12¾-14¼	1	80	Bâle—Winterthour by 4 routes	110-125	400
1897	N. C. Os' School.....	17¼	1	50	Berne—Bulle—Saanenmöser—Thoune—Berne	187	750
1897	do.	14	1	50	Berne—Spiez—Interlaken—Merligen—Berne	124	...
1897	do.	7	½	50	Berne—Köniz—Schwarzenbourg—Thurnen—Berne	60	330
1897	do.	29	2	50	Berne—Yverd.—St. Croix—Les Verrières—St. Blaise—Berne	226	760
1897	Suppy. Course	10¾	1½	100	Berne—Meiringen—Berne	186	...
1897	do.	32½	1	100	Berne—Scleure—Aarberg—Gümenen—Berne	106	...
1898	do.	30¼	1½	65	Berne—Bule—Vevey—Lausanne—Morat—Berne	213	500
1899	Rect. School	35	1½	185	Berne—Merligen—Grindelwy.—Interlaken—Wimmis—Kehrsatz—Berne ..	149	500
1899	do.	31¼	2	185	Berne—Bienne—St. Imier—Le Locle—Les Verrières—Travers—St. Blaise—Berne	218	640
1899	Suppy. Course	38¾	2	130	Berne—Brunig—Zurich—Langental—Berne	307	580
1900	do., N. C. Os' School.	53½	2½	100	Berne—Fribourg—Bulle—Vevey—Aigle—Pillon—Thoune—Berne	243	1,730
1902	Rect. School	65½	3	220	Berne—Aarau—Staffelegg—Laufenbg.—Laufon—Pleigne — Porr. — Damvent—Rangiers—Bellelay—Berne	323	1,700
1902	Suppy. Course	87*	3½*	135	Berne—Ins—Valangin—Les Brenets—Les Verrières—Fleur.—St. Croix—Yverd.—Vallorbe—La Sarraz—Morges—Morat—Berne	320	2,400
1902	do.	14¼	1	135	Berne—Signau—Wiggen—Schangnau—Schallenbg.—Thoune—Berne (14 km. in mountainous country)	102	550
1903	N. C. Os' School.....	7	1	50	Berne—Morat—Yverdon (the men reported for duty at 3 p. m. the afternoon before)	73	...
1903	do.	63½	3	50	Yverd.—Genève (by 4 roads)—Chancy—Genève—Nyon—St. Cergues—Noirmont (entry)—Le Brassus—Le Pont—Yverdon (42 km. on foot through the rain on Noirmont)	274	1,300
1903	Suppy. Course	32	1½	80	Yverdon—La Sarraz—Le Pont—Les Races—Pré de l'Haut—Les Grands Crosets—Pré de Bière—Marchairuz—Bière—La Sarraz—Yverdon (20 km. on foot through snow to Mont-Tendre)	125	1,350
1903	do.	26	1¼	80	Yverdon—Payerne—Gümmenen—Payerne—Yverdon	112	...

*Combined with 6 individual target practices and one battle practice by groups, at unknown distances.

Total days marching, 36. Total distance run, 3,900 km. Climbing on mountain roads, 15,500 m. Mean daily march, 108 km. 5 and 430 m. ascent. Mean strength of detachment, 103 men.

*THE FUTURE OF THE RUSSIAN NAVY.**

RUSSIA never is, but always to be blessed. She is always big with schemes; her friends and sycophants are continually talking of her "might" and conjuring up phantom pictures of what she could do if she would. Just now little is heard of the millions of men under arms of whom it was the custom to boast a year or so ago, but the world is asked to marvel at what the navy of Russia will be when it has been built up once more. It is an idle task to anticipate the events of the inscrutable future, but this form of prophecy is one of Russia's most valuable national assets. She is, and always has been, feared, not for what she has shown that she can do, but on account of what her apologists claim she could do. She was thus exaggerated into a great naval and military Power, at whose threats Chancelleries trembled. It remained for the smallest, poorest, and least "civilized" of the Powers to prick the bubble which Russian agents had industriously blown, with the result that Russia's military prestige for months past has been sinking in the eyes of the world, and she has ceased for the time to be a naval Power of any consequence. What remains of her fleet is to-day without influence on the course of events in the Far East and without respect in the West. It is in a state of suspended animation; it lies between the Eastern and Western worlds, inert and demoralized. Now that matters have reached this pass, and the British Admiralty have admitted that the removal of the menace of the Russian fleet has caused the Board to amend the shipbuilding programme, the ears of the people of the United Kingdom are being assailed with tales of the great fleet which Russia is about to build to replace the fleet she has lost. Those who would thus freeze the marrow in the bones of the British nation have misread the chapter of Russian naval disasters in the Far East, and they would do well to ponder carefully the remarkable series of events which have occurred since the war began. The fact is that Russia has practically ceased to be a naval Power. What ships of war she possesses are in what may be regarded as waters beyond the sphere of

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political influence. Every modern fighting ship fit for the open sea has been withdrawn from European waters and sent to the southern portion of the Indian Ocean. The original idea was that they should make a desperate attempt to right the balance which Japan adjusted so dramatically to suit her own ends at the beginning of the war; but for the time this idea is postponed, and the Russian fleet is still waiting.

History supplies no parallel to the events at sea which immediately followed the outbreak of war. The strength of the squadron at the beginning of 1904 had been carefully measured by the naval authorities at St. Petersburg, and they were satisfied that the ships in the Pacific ready for action were sufficient to deal with the fleet of Japan. Europe believed that the prestige which the Tsar's navy enjoyed was founded in a high state of efficiency. Even in Great Britain, where the essential factors of naval power are more accurately assessed, the chances of victory falling to the Russians were regarded in many quarters as open to little doubt, and on the Continent the suggestion that the fleet flying the St. Andrew's Cross in Far Eastern waters was in any danger of defeat was scouted as absurd. In Russia itself, confidence in Admiral Stark's ability and the resources at his command to urge successful war against the ships opposed to him was complete. Only as lately as October last, after the First Pacific Squadron had been decimated and its remaining units, more or less seriously damaged, had flown in panic to the shelter of various harbors, did reinforcements start for the scene of hostilities. According to the most optimistic prophecies indulged in at Cronstadt itself, these ships, which began their voyage so disastrously, owing to the nervous excitement and poor *morale* of the officers and men, could not reach Vladivostok, the port for which they were said to be making, until April at the earliest. Within a month of the setting out of this armada, Japan had rendered absolutely useless all the men-of-war remaining at Port Arthur, and thus before Admirals Rojhestvensky and Folkersahm had got far on their voyage to the Far East the whole naval situation was again rudely changed, and they have remained in a state of suspended animation, Micawber-like, waiting to see what will turn up.

Russia has been forced to abdicate her naval position in the West in order to deal with the situation in the Far East. It is impossible to conjecture any combination of fortuitous circumstances which can reinstate the fleet of the Tsar in the near future as an influence in European politics, for greater than the loss of ships—and this has been considerable—has been the loss of prestige, the revelation of defective

organization and war training. Even in the event of the Japanese navy being defeated—a possibility which is not generally entertained —the ships that will remain to the victor will have suffered more or less grievous injury in the conflicts and must be a negligible quantity; if, on the other hand, the high hopes which the outgoing ships bear with them are doomed not to be realized, and the Second Pacific Squadron, with its reinforcements, shares the fate which has overtaken the First Pacific Squadron, Russia's fleet will practically cease to exist. In any event, Russia must come out of the naval struggle with a navy of the smallest fighting value.

The point which the apologists for Russia fail to recognize is that she has never been a great maritime nation. Since the time of Peter the Great she has had a navy, an exotic and purely political instrument. In some measure the Russian fleet in its earliest days was cradled in England, and on one occasion, when it co-operated with a British squadron, Peter the Great hoisted his flag in command of the combined forces. In the eighteenth century the Russian navy attained some reputation as a fighting force. It was not so big that the maritime portions of the Empire could not supply it with an excellent body of officers and men, more or less versed in the lore of the sea, and possessed of some aptitude for naval life; in particular they were brave. But in these days of the glory of the Russian fleet, the high prestige which it acquired was due largely to the leadership of officers of British origin, particularly Scotsmen. The story of Russia on the sea at this period bears testimony to the deeds of Admirals Elphinstone and the Greigs, grandfather, father, son, and grandson; of Admirals Lord Duffus, Gordon, G. Paddon, and F. E. J. Keith; Captains Sir F. Thesiger, Armitage, Bark, W. Baker, Billing, John Deane, W. Batting, James Todd, F. Dennison, Crown, Benjamin Edwards, Andrew Simpson, Samuel Gibbs, Fitch, J. Lawrence, Stubbs, J. Waldron, J. Trevennen, and Trevegar; Lieutenants Dugdale, Mackenzie, and a number of others who took a leading part in raising the Russian fleet to a position of some distinction in the eighteenth century, while at St. Petersburg and Cronstadt Englishmen filled positions as chief constructors, with many of their countrymen associated with them in their professional work.

Six years ago, when the fame of the Russian fleet and its imposing growth were in every one's mouth, that sound observer, Sir George Sydenham Clarke, now the Secretary of the Committee of Imperial Defence, wrote as follows of the Russian navy and its achievements:—*

*"Russia's Sea-Power."

"Russian naval prestige rests wholly upon her wars with Sweden and Turkey in the last century. If the ambitions of Charles XII had taken a naval rather than a military shape, the far wiser aspirations of Peter the Great would have been less quickly realized. It was a Sweden in her decadence that Russia successfully opposed at sea, and the seamen by whom Russian victories were won were largely drawn from the population of Swedish provinces. Moreover, the Russian navy of the eighteenth century owed its fighting efficiency mainly to British officers. The Turks were never a great naval nation, and the fighting in the Black Sea resolved itself principally into affairs of flotillas, while the victory of Tchesme was wholly due to the skill and gallantry of Scotchmen. At Navarino no serious demand was made upon the Russian squadron, and at Sinope the conditions were so unequal as to preclude deductions. In the past the Russian navy has not shown marked enterprise, produced great naval commanders, or proved conspicuous in seamanlike ability. Nelson's aphorism, 'Close with a Frenchman and outmaneuver a Russian,' expressively sums up the opinion of the greatest admirals. Ancient traditions and inherited aptitudes are wanting to the Russian Empire, which has been built up from an inland centre by people who, with set purpose, extended their dominion towards the sea. Sea borne commerce, which has been alike the support and the educating force of other nations, has played little or no part in the development of Russia."

In view of later events, this masterly summing up of the Russian navy deserves to be recalled. When Sir George Sydenham Clarke wrote these words the Russian fleet was still regarded with a certain admiration even by British naval officers. Hidden away as it was in the Baltic and the Black Sea, naval judgment was founded upon little more than rumors, and it has proved unreliable. The fact is, that in the nineteenth century the Russian navy not only added nothing to its prestige, but owing to failure to recognize the change in conditions of warfare afloat, which occurred after the introduction of steam, armor and rifled guns, it lost ground. After the Russo-Turkish War the navy, it is true, experienced a renaissance. It was recognized that the conflict might have been conducted more expeditiously if Russia had had an adequate fleet in the Black Sea to ensure the safe passage of troops. Consequently the work of building a new navy was taken in hand, and at the same time a change from sails to steam as the motive power had to be made, in accordance with the action of other Powers. It was a bad day for Russia when mechanical propulsion was introduced. She had a fair supply of sailors of splendid courage and magnificent hardihood, but she possessed no system of education

and no trades to provide the seamen of the new type instinct with a mechanical aptitude. As the years passed, and the domination of physical science on board men-of-war became more and more pronounced, the Russian deficiency became increasingly apparent. No nation without high technique can maintain a great fleet in efficiency in these days.

Russia refused to face the situation. The Admiralty at St. Petersburg still looked upon the mere ships as synonymous with sea-power, and additions were made to the fleet with little or no regard to the most important factors, properly educated and well-trained crews. As the demand for more seamen increased, men were called from the fields in districts far removed from the sea. They had no love of the life, the sea was to them a force which they did not understand and did not wish to understand, and at the same time they were lacking in intelligence and in all mechanical knowledge. They were agricultural laborers, that and nothing more. The greater the fleet became—the more rapidly ships were built in French, German, American and Russian shipyards, the more apparent became the difficulty to obtain crews, and year by year the quality of the *personnel* fell. It is not suggested that the Russian sailor has been or is devoid of courage. On the contrary, he has always been brave and daring, and in the present war he has shown his metal on many occasions. But the day has passed when brute courage, unallied with an active, trained mind and mechanical skill, counted for much in naval warfare. While Russia should have been concentrating attention on the means of training men for her fleet, she was satisfied with building ships, or ordering them abroad—ships, still more ships—under the delusion that these vessels, however inadequately manned, meant power.

Her geographical position added still further to the disadvantage under which she suffered in creating a great navy. She had to organize four navies, one for the Far East, one for the Caspian Sea, one for the Baltic, and another immured in the Black Sea by the Treaty of Paris. She had to utilize the Baltic for the training of her main sea forces, and here each year the winter closed up the waters early and failed to release them until late in the spring. All the months which Great Britain and the United States employ in training were useless to the Russian Admiralty. As soon as winter closed in, the ships became fast frozen, and a large proportion of the crews were withdrawn ashore. In these circumstances Russia struggled in the years prior to the war to fit out and train a fleet to defend her forward policy in the Far East. She worked with such resolution, such cool defiance, such absolute confidence, that she deceived practically

the whole world. Japan alone saw through the imposing array of ships and appreciated their real worth.

When the war opened, Russia had in the Far East, or well on their way to the Far East, a squadron equal to the whole fleet of Japan—on paper. Within six months that impressive array of ships had been reduced to impotence, while the officers in charge of those which were outward bound considered themselves compelled to return to Europe. It is unnecessary to describe at length the series of misfortunes which robbed the Russian squadron of its power to take the offensive, but summarizing the events down to October, so far as they affect the most important vessels, the battleship Petropavlovsk, and the cruisers Rurik, Variag, Pallada, and Boyarin, were lost, the battleship Tsarevitch and the cruiser Askold disarmed in neutral harbors, in addition, to a number of small ships, and the Cromoboi rendered unfit for service by injuries received by grounding. The fate of the Rossia is uncertain. Then, early in December, came the final debacle, when the Japanese gunners, having captured 203 Metre Hill, poured shells on the ships in Port Arthur and sunk those which the Russians themselves did not render useless. The ships' guns had been landed to strengthen the fortifications and the crews withdrawn to assist the army, so that the vessels were inert targets for the guns of the besiegers, and from the first their destruction was in no doubt. Consequently, of the splendid squadron with which the Russians began the war, there can remain more or less intact, only one armored cruiser at most, the Rossia, at Vladivostok. Japan has wiped out to all intents and purposes seven battleships, three armored cruisers, and seven protected cruisers, besides torpedo craft. In the course of the struggle the Japanese ships have not escaped unscathed, but the only important vessels which have been lost have been the battleship Hatsuse, sunk by a mine off Port Arthur, and the cruiser Yoshino, which foundered after collision with the Kasuga, one of the two armored cruisers brought from Argentina on the eve of hostilities.

When we come to examine the position of the belligerents on the sea, it is, therefore, apparent that in despatching a second squadron to the Far East, Russia has not forwarded reinforcements in the ordinary sense of the term, but has sent out a new squadron, which has nothing in the way of assistance to hope for. She is beginning anew, the contest for the command of the seas in the Far East, not with ships manned by experienced officers, ships which have maneuvered together in battle for months, but with men-of-war freshly commissioned with raw crews, who for the most part have never seen a gun fired in anger, and who must necessarily have had little

training. It takes five or six years to complete the naval training of a British bluejacket, while most, or, at any rate, a large proportion, of the men on board Admiral Rojhestvensky's fleet have been sent to sea for the first time; and it is no slight task to engage in battle with crews who must necessarily be strange to their duties.

It may be admitted that the despatch of this squadron to the Far East was an unparalleled event. It is the most imposing force which has ever passed in full fighting trim from West to East, indeed the biggest squadron of modern ships which has sailed any ocean on a warlike mission. Hitherto Russia has confined her ships to the narrow seas; now a large portion of them have had to pass out into the Atlantic, and the experience must have severely tested the courage and resourcefulness of the officers in command. The decision to fling into the conflict all that remains of the sea-power of Russia is an indication of serious resolve to spare neither life nor ships in the endeavor to win back the command of the seas.

Without the continuance of the security afloat, which she has enjoyed since the war opened, Japan will be undone. Only so long as the fleet remains supreme in the waterways behind the advancing armies operating in Manchuria can Japan hope for ultimate success. If by any means the outgoing Russian squadron should manage to intervene between Japan and the armies at the front, if it should gain the command of the seas, then Marshal Oyama's forces will not only be in dire peril, but under no circumstances can they expect to attain the national hopes. The Japanese army will be in the position of the French troops after the battle of the Nile. The sea command is the master-key of Japan in the present struggle, as it was of Great Britain in the war in South Africa.

But the Russian ships have not yet reached the Far East. The weakness of the movement lies in the fact that, owing to the conditions governing the sea-power of Russia, she was compelled to divide her forces for the passage, and rely upon the vessels reuniting at some point near the scene of action. The main portion of the fleet proceeded as far as Tangier, where it divided. One section, consisting of the five battleships Kniaz Suvaroff, Orel, Alexander III., Borodino, and Oslabia, with the cruisers Admiral Nakimoff, Dmitri Donskoi, and Aurora, five transports, a hospital ship, and a supply ship, passed out into the Atlantic, under Admiral Rojhestvensky, and proceeded by way of the Cape of Good Hope, while the other section, under Admiral Folkersahm, including the two battleships Sissoi Veliky and Navarin, the three cruisers Svietlana, Almaz, and Femtchug, six destroyers and five transports, made the voyage by way of the Suez

Canal, since the small craft could not be exposed to the heavy seas which are met with in the South Atlantic and Pacific during the winter months. Later on, a third division of the squadron, the two cruisers Oleg and Izumrud, eight torpedo-boats, and several auxiliary cruisers, also pursued the shorter route; and then went out a further assortment, consisting of a few vessels of slight fighting value which were styled the first section of the Third Pacific Squadron. By means of colliers sent in advance, and the kindly offices of other Powers, the ships obtained coal for the journey, though Russia classifies it as contraband.

There is the bare possibility that all will go well with the four divisions of the outgoing squadron, and that the whole force will be concentrated, and that then it will start out for Vladivostok in its full strength. Such a possibility is extremely unlikely, because in a large heterogeneous force, with strange and partially drilled crews, with ships, many of which are new, and therefore have untested machinery, mishaps will occur to rob the admiral of some units. In this event he will still have to move forward, and in impaired strength. For the sake of comparison, however, it may be of interest to compare the strength of the belligerents in the event of the Russian fleet in its full strength meeting the forces at the disposal of Japan:

JAPAN.

BATTLESHIPS (5).

	Date of completion	Displacement (tons).	Nominal speed (knots).	Main guns. 12-in.	Main guns. 6-in.	Gun protection (armor).
Mikasa	1902	15,200	19	4	14	14.6-in. (2)
Asahi	1900	15,200	18	4	14	14.6-in. (2)
Shikishima	1899	14,850	18	4	14	14.6-in. (2)
Yashima	1897	12,300	19	4	10	14.6-in. (2)
Fuji	1897	12,300	18	4	10	14.6-in. (2)
		69,850		20	62	

ARMORED CRUISERS. (8).

				10-in.	8-in.	6-in.	
Asama	1899	9,750	28	—	4	14	6.6-in. (2)
Tokiwa	1899	9,750	22	—	4	14	6.6-in. (2)
Idzumo	1901	9,800	24	—	4	14	6.6-in. (2)
Iwate	1901	9,800	21	—	4	14	6.6-in. (2)
Yakuma	1901	9,850	20	—	4	12	6.6-in. (2)
Adzuma	1901	9,456	21	—	4	12	6.6-in. (2)
Nisshin	1904	7,700	20	—	4	14	6.6-in. (2)
Kasuga	1904	7,700	20	1	2	14	6.6-in. (2)
		73,806		1	30	108	

PROTECTED CRUISERS (14).

	Date of completion.	Displacement (tons).	Nominal speed (knots).	Main guns. 12.6-in.	10-in.	8-in.	6-in.	4.7 in.
Takasago	1898	4,300	24	—	—	2	—	10
Kasagi	1898	4,784	22	—	—	2	—	10
Chitose	1899	4,784	22	—	—	2	—	10
Itsukushima	1892-3	4,277	17	1	—	—	—	11
Hashidate	1892-3	4,277	17	1	—	—	—	11
Matshushima	1892-3	4,277	17	1	—	—	—	11
Naniwa	1886	3,727	18	—	2	—	6	—
Takachiho	1886	3,727	18	—	2	—	6	—
Akitushima	1893	3,150	19	—	—	—	4	6
Niitaka	1903	3,420	20	—	—	—	6	—
Tsushima	1903	3,420	20	—	—	—	6	—
Suma	1897	2,700	20	—	—	—	2	6
Akashi	1897	2,700	20	—	—	—	2	6
Idzumi	1879	2,800	17	—	—	—	2	6
		54,663		3	4	6	34	87

Japan possesses in addition a number of unprotected ships of no great fighting value.

RUSSIA.

BATTLESHIPS (11).

	Date of completion.	Displacement (tons).	Nominal speed (knots).	Main guns. 12-in.	10-in.	9-in.	6-in.	Gun protection (armor).
Knais Suvaroff	1904	13,516	18	4	—	—	12	10 (1)
Alexander III	1904	13,516	18	4	—	—	12	10 (1)
Borodino	1904	13,516	18	4	—	—	12	10 (1)
Orel	1904	13,516	18	4	—	—	12	10 (1)
Oslabia	1901	12,674	19	—	4	—	11	9 (2)
Sossoi Veliky	1897	8,880	16	4	—	—	6	14 (2)
Navarin	1895	9,476	16	4	—	—	8	12 (2)
Nicolia I	1892	9,672	14	2	—	4	8	10 (2)
Admiral Apraxine	1898	4,200	15	—	3	—	4	8 (1)
Admiral Seniavin	1895	4,200	16	—	—	4	4	8 (1)
Admiral Oushakoff	1895	4,200	16	—	—	4	4	8 (1)
		107,366		26	7	12	93	

ARMORED CRUISERS (5).

				8-in.	6-in.	4.7-in.		
Vladimir Monomach	1885	6,061	15	5	12	—	—	10 (3)
Dmitri Donskoi	1885	5,882	16½	—	6	6	—	10 (3)
Admiral Makimoff	1888	8,524	16½	8	10	—	—	8 (3)
*Rossia	1898	12,130	20	4	16	—	—	2 (2)
*Gromoboi	1900	12,336	20	4	16	6	—	6 (2)
		44,933		21	60	12		

*Reported damaged.

PROTECTED CRUISERS (6).

	Date of completion.	Displacement (tons).	Nominal speed (knots).	Main guns. 6-in.	4.7-in.
Oleg	1904	6,675	23	12	6
Aurora	1902	6,630	20	8	—
Svietlana	1897	3,824	20	6	—
Almaz	1903	3,285	19	—	4
Jemtchug	1904	3,200	24	—	6
Izumrad	1904	3,200	24	—	6
		26,814		26	16

Several auxiliary vessels, unarmored, have been fitted out by Russia, including the Dneiper (formerly famous as the Smolensk), and the Don (formerly known as the St. Petersburg).

ARMORED SHIPS.

Japan.							Russia.							
No.	Displacement.	Main guns.					No.	Displacement.	Main guns.					
		12-in.	10-in.	8-in.	6-in.	4.7-in.			12-in.	10-in.	9-in.	8-in.	6-in.	4.7-in.
13	143,656	20	1	30	170	—	16	152,299	26	7	12	21	153	12
PROTECTED CRUISERS.														
14	54,663	3 (old)	4	6	34	87	6	26,814	—	—	—	—	26	16

(1) These vessels have the latest Krupp armor. (2) These ships have Harveyed steel. (3) This is compound armor.

A mere "counting of noses" is not a reliable method of estimating fighting power. Those who have been to sea and witnessed huge squadrons maneuvered and drilled will readily understand that the man is still greater than his weapon, in spite of the triumphs of physical science in war equipment. The two fleets set out in summary above appear more or less on an equality, bearing in mind that Russia has an advantage in battleships, while Japan, on the other hand, is better off in the matter of armored cruisers. Russia possesses four quite new battleships with the hardest armor and the most penetrating guns, whereas the battleships of the Japanese belong to the preceding period in protection and artillery. Admiral Rojhestvensky's movements, however, must be hampered by a number of small or old ships, the usefulness of which for open sea warfare it is difficult to assess; under some circumstances they must prove a serious embarrasment. In the matter of torpedo craft the Japanese have an immense superiority, as they have also in cruisers, to act as "the eyes

and ears" of the battle fleet, and in auxiliary vessels for the supply of stores, etc. In the renewed conflict for the command of Far Eastern seas both belligerents will employ submarines, and each has about half a dozen. For the first time since the submarine was developed as a practicable weapon, the world will probably have an opportunity of seeing in actual warfare, as distinct from peace maneuvers, what underwater craft can accomplish.

So much for the ships themselves. Russia has an advantage owing to her possession of the four new batleships of the Borodino class. Does it, therefore, follow that she has the best fighting machine? We have seen the best constructed ships converted into loathsome shambles in consequence of the incapacity of those who fought them —in the Chino-Japanese and the Spanish-American wars. President Roosevelt, writing on the essentials to naval success, has remarked on the necessary preliminary preparations:*

"This preparation was absolutely necessary in the days of sailing full benefit from the delicate and complicated mechanism of the formidable war engines of the present day. The officers must spend many years, and the men not a few, in unwearied and intelligent training, before they are fit to do all that is possible for them and their weapons. Those who do this, whether they be Americans or British, Frenchmen, Germans, or Russians, will win the victory over those who do not. Doubtless it helps if the sailormen—the sea mechanics, as they are now—have the sea-habit to start with; and they must belong to the fighting stocks. But the great factor is the steady, intelligent training in the actual practice of their profession. When the day of battle comes the difference of race will be found as nothing when compared with differences in thorough and practical training in advance."

All experience bears out this judgment of President Roosevelt. In the Russian Navy this thorough practical training has been neglected, and the men have not the sea aptitude. The ships are manned by raw crews, to whom the excursions and alarums of warfare will be strange, and who have had no opportunity of learning how to maintain unremitting watchfulness, unvarying calmness and steadiness of nerves, hands, and eyes in face of a foe. On the other hand, the Japanese who will meet the outgoing Russian squadron are the same officers and men who have been fighting since the beginning of February, 1904, and before then had been unceasing in their maneuvers and drills. A keenness has been put on the natural fighting edge of

*"History of the Royal Navy."

the race, and it is in the light of this knowledge that the prophecy is made that the Japanese will deal as effectively with the Second Pacific Squadron of Russia as they did with the First Pacific Squadron.

Now that the Russian battleships and cruisers at Port Arthur have been annihilated, Admiral Togo has at his disposal all the Japanese Navy to meet and try conclusions with the Russian men-of-war. It is useless to attempt to anticipate the strategical dispositions which will be made by the Japanese, as so much will depend on local circumstances. It has been said that the presence of Nelson in command of a British fleet was equivalent to six battleships, and the Japanese feel the same confidence in Admiral Togo as British sailors reposed in Nelson. In naval warfare confidence in the leader is a national asset which it is impossible to over-estimate, and lack of confidence, as exemplified by the Russians in the sortie of the 10th August, when, as German writers have pointed out, it was the deciding factor in the running fight, may bring defeat to the strongest foe. The strategical situation is one of some complexity, but it has yet to be shown that it is beyond the power of Admiral Togo, with strictly limited forces at his command, to completely justify the high hopes which his countrymen entertain.

In any event, the important fact to be borne in mind is that Russia has suffered a far more serious loss than the ships which the Japanese have destroyed or driven for shelter into neutral ports to be interned. Russia has been compelled to lay bare to the eyes of the world a naval organization almost as inept and muddled as that of Spain before the war against the United States, and she has also shown how deplorably officers and men are lacking in practically all the essentials of war training. The fall of the Russian Navy has been infinitely greater than that of any other navy for many decades, because it had so much further to fall. Even visitors to Russian naval ports had been deceived by the seeming efficiency of the administration and the methods employed to fit officers and men for their duties. But at the first clash of war the whole structure of make-believe tumbled down.

Because the Russian Admiralty is talking of the vessels which will shortly be commenced in home and foreign shipbuilding yards, the whole world is asked to tremble once more, and that familiar stalking horse, the "might" of Russia, is being trotted out for further service. Russia may obtain a new fleet of battleships and cruisers in three years if she is willing to pay the price.

In that period Great Britain could, if need be, complete as many

as two dozen battleships. Ships of war of excellent construction can be obtained as easily as a suit of clothes, providing the purchaser has the money wherewith to pay for them. But the organization and *personnel* are not provided as easily. The machinery for modelling capable officers and well-trained seamen, stokers, artificers, gunners, and torpedoists is the product of many years, even where the human material has the special technical aptitude which is essential nowadays. The men who are available for the Russian fleet have no technique, nor have they the mechanical aptitude, nor, again, love of the sea. They are dumb driven cattle, whose hearts are not in their work. Russia may go on building ships of war, but these vessels are not sea-power. Sea-power is a weapon far less easily obtained. Russia must go back over her whole administration and re-model it; she must recognize that mechanical skill is even more essential in the *personnel* than brute courage, and that before her ships can be rendered fit to meet an efficient and adequately trained fleet at sea, the whole character of the *personnel* must be raised.

The bogey of what Russia will do is old and seer with years. Because the Muscovite Power talks of more ships and boasts of what will be done in the future, there is no occasion for nervousness on the part of neighbors and rivals. Russia may obtain ships if she has funds, but not until throughout the whole administration a new spirit is evident will those ships be a serious menace. Great Britain certainly must meet every ship when it is laid down by corresponding units, but there need be no haste or sensation. If to-morrow it is confirmed that Russia is about to have eight, ten, or a dozen battleships commenced in home and foreign shipyards, there will be no excuse for alarmist cries. We in the United Kingdom can hold our souls in peace. We can wait and watch. Not until the ships are actually under construction and their sides are ready for the armor, need we begin necessarily to bestir ourselves, and even if we give the Russian authorities this start, we can have our replies at sea before the new Russian ships are flying the St. Andrew's Cross.

ARCHIBALD S. HURD.

NEW ENGLAND WOODS.

My native woods! dear, unforgotten shades!
Fond memory seeks your cool, sequestered glades.
When on my bed I court sweet sleep in vain,
She roams your walks to soothe my weary brain.
Acadia's grove that wooed the sighing breeze
Had less of peace and fewer charms to please.
How oft I've sat in boyhood's dreamy hours
To muse of love beneath your sheltering bowers;
Or laid a shining weft on fancy's loom,
Through which the Fates have woven threads of gloom.
All, all your trees, the maple, chestnut, beech,
And hemlock drear, I knew, and loved them each.
Ah! sweet the sound as mid their leafy boughs
The oriole sang to cheer his brooding spouse;
Or haply tuned in pride his wondrous lay
To prove its notes, and shame the chattering jay.
More fragrant far than bloom from cultured grounds
The garlands plucked within your hallowed bounds:
The dainty trillium born in mossy shade;
The pitcher-plant for Dryad revels made;
The orchis pure that droops its blushing face;
And star of Bethlehem crowned with modest grace.
Still, still, methinks, a perfume fills the air,
And still I wish my lines had fallen there.
Familiar haunts that in my memory dwell—
Dear, native woods—farewell!—a last farewell!

By the late Henry Hubbard Pierce,
Captain U. S. Army.

Forest Grove, Oregon, December 22, 1882.

THE LIEUTENANT'S DILEMMA.

By Henry R. Brinkerhoff, Colonel U. S. Army.

The food was then placed upon a platter made from the twigs of the yellow willow, ingeniously woven together by the use of a woof of tenacious threads obtained from the inner bark of the amole cactus, and eventually carried to the lodge occupied by the Lieutenant and his companion. The platter was accompanied by another vessel of like construction, covered with slices of venison, cut from the loins of the young deer, and "broiled to a turn" over the coals in which the turkey had been cooked.

The host gave the signal for the feast to begin, and pushing the platter containing the turkey towards the Lieutenant bade him carve for himself. An outdoor life, especially in the mountain region of New Mexico and Arizona, usually develops a phenomenal appetite. The Lieutenant and his companion afforded no exception to the rule, and beginning at once without further encouragement, ate of the delicious meats set before them, with a pleasure they had seldom ever before experienced.

When at last the feast was finished, a couple of women made their appearance and carried the platters from the lodge. The host then produced a pipe made from the antlers of a deer, and proceeded to fill its capacious bowl with killikinick, prepared from the aromatic bark of the red sumac and the yellow willow. He lighted the bark gravely when he had finished filling the bowl, using an ember brought to him by one of the women, and after a few vigorous puffs passed the pipe to his guests.

"The heart of Kishnawau," he observed when the bark in the pipe had all been consumed, "burns for the friendship of the white chief."

"The heart of the white chief," replied the Lieutenant, "burns vigorously in response."

A long silence followed these conventional exchanges, which was broken at last by the young officer who ventured to inquire how many days the Indian had followed himself and his companion in the mountains.

"Three days," replied the Ute. "Three days and three nights."

"Why did Kishnawau follow the white chief?" asked the officer. "Did he hope to find him asleep that he might steal his horses?"

"The heart of Kishnawau was not as kind then towards the white chief as it is now," he replied, evasively.

"However that may be," said the Lieutenant, decidedly, "it is wrong to steal horses from either friend or foe."

"So says every man who has many horses," replied the Indian.

"Possibly so," said the Lieutenant, "but nevertheless it is wrong."

"To take horses from an enemy," said the Indian, earnestly, "is a worthy deed, and the white man who hunts in the mountains and kills the game that the Utes depend upon to furnish food for their women and little ones, is an enemy. Do the white chief's people ever steal horses?" he concluded, abruptly.

"Our moral ethics," replied the Lieutenant, evasively, "include the sacred teachings embraced in the words, 'thou shalt not steal,' and wherever we go we teach the peoples with whom we come in contact to accept those words as their guide."

The trapper found great difficulty in making the Indian comprehend the substance of the Lieutenant's words, and after many repetitions abandoned further effort as useless.

"It seems to me," he said at length, addressing the Lieutenant, "that it will be best to abandon further effort in this field. The old scoundrel refuses to understand, though I'm sure he comprehends fully what is meant."

"Possibly," said the Lieutenant. "But I'm afraid your charity and patience is not now particularly in evidence. If our kind friend here misunderstands us wilfully, because we don't agree with him, I'm sure we can find abundant company for him wherever we go. Butler says, you may remember, that:

'It is in vain
We argue 'gainst the grain
In hope to incline men to do
What they're averse to.' "

The trapper in common with people of his class on the frontier of the country at this time, was greatly prejudiced against the red man, and could see nothing to admire in anything he did or said. If he tried to be good according to the white man's standard, these people charged him with being a hypocrite. If he sought for a fair chance in any commercial transaction, they denounced him as dishonest. If he was prosperous in horses and sheep, they called him a thief. If his possessions were limited, they asserted he was a lazy vagabond. If he indulged in a dance, they declared he was preparing for mischief, and if he went on a journey they were sure his travels would

end on the war path. Altogether the red man seldom found justice at the hands of the trappers and his brother wanderers on the frontier.

Occasionally one of these Ishmaelites was smitten by the charms of a dusky maiden, and abandoning his associates entered with her upon the nomadic life of her people. It happened usually in such cases that the "squaw man," as the unfortunate frontiersman was called by his fellows, led the way in his new relations to lower conditions than had existed before among the people. These results were invariably attributed to the evil influence the Indians exerted, rather than to the control the white man was able to effect by reason of his superior intelligence.

The Lieutenant was fully aware of the prejudice the trapper entertained against the Indians as a people, and accepted many of the assertions of his companion concerning them with great reservation. He felt skeptical also at times, of the translations of Kishnawau's words, and feared that the truth was occasionally sacrificed for a liberal and possibly unjust rendering. He was satisfied, however, that the interpretations on ordinary subjects were practically correct after being divested of the wordy embellishments often used by the trapper.

"I should think," said the Lieutenant, "that the theft of horses would often provoke war between the tribes."

"Yes," exclaimed the Indian, eagerly, evidently well pleased that the conversation had turned in a direction that promised to be free from perplexing questions. "Yes," he repeated, "the theft of horses has been the cause of many wars. Very many wars," he continued deliberately, as though he indulged in reminiscence while he spoke. "It made a bloody war once between the Utes and the Navajoes.

"It came about in this way," he said, as he observed that the Lieutenant and his companion were watching him attentively, evidently waiting for him to speak. "Meenomo, the head chief of the Utes, had a beautiful daughter and many of the young warriors of the nation watched the girl as she grew to womanhood, intending to offer horses for her when the proper time should arrive.

"At last a Navajo warrior came one day on a visit to some friends who lived in the village in which the chief had built his lodge, and when he saw Meena, the chief's daughter, he could not control his desire for the girl. Returning quickly to his hogan in his own country, he selected some fine horses from his herd, and driving them before him came again to visit his friends in the Ute village, accompanied by two young companions.

"On reaching the village the Navajo hastened to offer horses

for the girl. Beginning with two he added one each time until seven were offered. Such an offer for a maiden had never before been heard of in the nation, and the chief rubbed his hands with delight. He nodded his head at the Navajo as a sign of acceptance, and was about to lead the horses away when he discovered that one of the animals bore his own mark, having evidently been stolen from a herd of the Utes then grazing in the mountain ranges in the direction from which the young warrior and his companions had come.

"The Navajo hastened to explain that he had bought the horse from an Apache warrior whom he had met on the way, but the chief was angry and doubted his words. At last he ordered the Navajo to leave the village with his horses and friends.

"The young warrior took the affront quietly, to the surprise of the people who stood near, and leading his horses away, quickly disappeared among the hills that lay alongside of the village, going in the direction of his home.

"Early on the following morning Meena took the gourd from her mother's lodge and singing as she went, made her way down the crooked path through the willow bushes towards the stream, to get water for the lodge. As she came near the stream the Navajo suddenly sprang out of the bushes into the path before her, and seizing her in his arms quickly carried her away. She struggled violently to free herself from his grasp, but she was a frail young girl, and her efforts were useless. She tried at length to scream, but he quickly placed his hand upon her mouth and smothered her cries.

"It so happened that another village maiden had gone for water a little earlier in the morning, and on returning had hid herself in the bushes when she heard Meena coming down the path, intending to frighten her in play as she passed, and had seen clearly what occurred. As soon as the Navajo disappeared with the girl in his arms the maiden ran to the village and gave the alarm. The chief hurriedly mounted and accepting the services of two warriors who happened to be passing at the time, set out at once in pursuit of the Navajo. The sun had scarcely gotten well overhead when Meenomo and his warriors came in sight of the fugitives. The two companions of the Navajo halted at once, and when the chief came near they offered him battle, to cover the flight of the young warrior and the girl. Meenomo attempted several times to get past them that he might follow the Navajo who had stolen his daughter, but he had ridden very rapidly in the pursuit and his horse had become greatly fatigued and could scarcely go on. The chief turned at last upon the two Navajoes when

he saw that further attempt was useless, and closing upon them killed them both with his own hand.

"The Navajo got safely away with the girl and Meenomo returned to his lodge empty-handed.

"The chief was in a great rage, and calling his warriors together, led them against the Navajos and captured their horses and sheep, and burned their hogans, and killed their people. He was a great warrior and was never so happy as when at the head of his braves leading them to battle.

"At last the Navajoes gathered their warriors together and went on the war path against the Utes. The two forces met finally on the banks of the San Juan and fought a great battle, in which the Utes were victorious. The blood rose to the tops of the warriors' moccasins as the battle went on, and finally when the victory was gained the great, red blood sank slowly into the ground and colored the earth so indelibly that the rains have never been able to wash out the stain."

When the Indian ceased to speak he glared about him wildly, and nodded his head repeatedly in a defiant manner, apparently desiring by this means to express his gratification over the result of the battle, and to give warning of results that might follow future provocation of the Utes.

"It seems to me," said the Lieutenant, after some time had succeeded the pantomimic display of the Indian, "that the quarrel was caused by the theft of the girl rather than by the theft of the chief's horses."

"No, no," replied the Indian, earnestly. "The white chief does not understand. Meenomo was angry, to be sure, because his daughter had been stolen, but it was the theft of his horse that caused him to go on the war path. If the matter had been permitted to drop, the herds of the Utes would no longer have been safe."

"The safety of the maidens of the nation then seems to have been of secondary importance," said the Lieutenant.

"Yes," replied the Indian, "but the maidens were never in danger. After Meena had been carried away by the Navajo, every young woman in the village made her way slowly, morning after morning, down the crooked path among the willows, on her way to the stream for water, and it never happened that any one of them was carried away. I think," he continued, "they were safe and needed no war to protect them.

"But now," he went on, after a brief pause, "Kishnawau will go to his lodge and bring a gift to the white chief that will make his heart glad."

He immediately withdrew from the lodge, and after a brief absence reappeared, leading by the hand his youngest daughter, quite a comely Indian maiden of marriageable age, and in a brief speech presented her to the young officer.

"The white chief," he said, "saved the life of Kishnawau, and he now brings his daughter, Satuma, to be the wife of the chief, to reward him in part for his brave deed."

The girl hung her head and made lines on the ground with the toe of her moccasin. Occasionally she partially raised her head and glanced surreptitiously at the officer, who stood the meanwhile watching her curiously, and seemingly greatly perplexed over the honor so suddenly and unexpectedly thrust upon him.

She wore a short woolen skirt of native manufacture, that came to her knees, and was held in place at her waist by a leathern belt ornamented with many bright colored beads and large buttons of silver. Her long, dark hair hung in a thick braid at her back, extending below her girdle, and was tied at the end by a bright ribbon of wool that had been manufactured in a native loom. She wore clean, white deerskin leggins that extended from the bottom of her skirt to her ankles, where they were joined to dainty moccasins of buckskin, embroidered by means of flexible threads of porcupine quills, with fanciful figures of flowers and trees. A wide woolen scarf made of red and black threads of native spinning, was wrapped about her shoulders, its ends falling across her breast like a baldric. A richly colored blanket of fine wool, lay carelessly upon her shoulders, partially covering her bare arms and adding whatever else may have been needed to complete the picturesque appearance of her dress.

"It is the custom of the Utes," continued the Indian, "to sell their daughters for horses and sheep, but Kishnawau wants none of these from the white chief. If he will take the daughter to his lodge, the father will be content."

"I guess you're in for it, Lieutenant," said the trapper, observing the confusion into which the young man had fallen.

"But tell him I can't do it," he said, "I am already engaged to be married."

The Indian shook his head earnestly when the trapper interpreted the words of the Lieutenant.

"That makes no difference," he said. "The white chief is worthy of more wives than one."

While the trapper endeavored to explain to the Ute the marriage customs that prevailed among the American people, the girl recovered

somewhat from the diffidence she had shown when she first entered the lodge, and frowned vigorously at the young man whenever he looked at her. Occasionally she pursed her mouth as she frowned, but whether she did it as an intimation that she wanted to be kissed, or because she pouted from displeasure, was not quite clear to the Lieutenant. It was evident, however, that she was not greatly impressed with the "white chief," to whom she believed she was about to go as his wife, and was inclined to be defiant, if not altogether rebellious. Her conduct rather piqued the young gentleman, who entertained a high opinion of his personal appearance, and his ability to captivate the opposite sex at pleasure. It was almost mortifying to him that this Indian maiden, who in his estimation had never before, probably, seen so fine a specimen of physical manhood, did not at once fall at his feet in ecstasies over the mere prospect of becoming his wife. But he was convinced on reflection, that the spirit she exhibited was largely assumed and that a little advance on his part would break it all down. He hesitated, however, to attempt the conquest, fearful that success might be followed by claims he could not satisfy.

"Tell the Indian," he said at length, "that we will defer the consideration of this matter for the present. To-morrow, maybe, when we have slept and are rested, we may talk of it again."

The girl hastened from the lodge when the words of the Lieutenant were interrupted by the trapper in her hearing, hesitating for an instant at the door as she went out, to pout with her lips once more at her proposed husband.

"She a vixen," said the young man, "and richly deserves to be subdued."

The father had observed the defiant expressions of his daughter, and a stormy scene occurred when he took her back to the lodge of her mother.

She was meek enough on the following day when she once more appeared before the young officer, and seemed much overcome by the prospect before her and very subdued in her manner. Tears showed in her eyes as she glanced inquiringly at the young man, and her face wore a pitiful appeal that was greatly in contrast with its expression on the previous day.

"The girl seems to have come to her senses," observed the officer to his companion. "But nevertheless the affair has gone far enough. Please tell our red friend," he continued, "that I don't want his daughter, and won't have her."

"No, that won't do," said the trapper. "That won't do at all. You

couldn't offer the father a greater affront than to refuse his gift. We will have to resort to a little diplomacy to get out of the affair."

"Well, tell him, anyway, that the girl didn't seem yesterday to be particularly desirous to have me for her husband, and that Americans never take a woman against her will."

The Indian smiled almost audibly when the words of the Lieutenant were interpreted to him.

"It was all new to her then," he said, "and the white chief was a stranger. But to-day she greatly admires him, and would weep until her eyes were gone if she could not be his wife."

"But tell him," said the Lieutenant, addressing the trapper, "that I desire to continue hunting for awhile, and that a woman would be in the way. Tell him," he continued," that white people never take their wives with them on hunting expeditions, and that some time, possibly, I may come back for Satuma, but that I cannot take her with me now."

The discussion lasted until midday, and ended finally in an agreement that the matter should remain in abeyance, awaiting the close of the hunting season.

When this agreement was finally reached, the Lieutenant and his companion began to prepare for an immediate departure from the village, notwithstanding the earnest appeals of Kishnawau that the visit should be prolonged.

The young girl quite gave way to a paroxysm of weeping when the Lieutenant finally bade her good-bye, and her father hastening to the side of the trapper earnestly assured him that his daughter's emotions were caused by the affection she entertained for her husband. The young man himself was quite visibly affected, and turning to his companion as they rode away, said softly:

"It grieves me much, after all, that I cannot accept the tribute of this young heart. Its offering seems pure and unaffected, and comes like a pearl out of unmentionable conditions."

"Don't encourage that view for a moment," urged the trapper. "Kill it in its infancy. Remember the warning you remarked yesterday was given once by a poetry man who said, 'A little fire is quickly trodden out; which, being suffered, rivers cannot quench,' or something like that. It would break my heart to see you become a 'squaw man.'"

The Lieutenant made no reply, but turning about in his saddle waved adieu with his hand to the Indian and his daughter, and then rode on rapidly, following his companion.

"You're luckily out of it, young man," said the trapper, as they rode

along. "It was a mighty close call for awhile and the chances were good that the old redskin would take offense at your refusal to accept his daughter, and go on the war path against us. It was fortunate, I think," he continued, "that the girl didn't seem to fall in with her father's views very cordially, especially at the beginning."

"Yes," replied the Lieutenant, indifferently, "I suppose the affair was somewhat threatening for awhile. But so far as the girl was concerned," he continued with much animation, "I had no fear whatever."

The young man indulged in a brief laugh when he ceased to speak, in an effort apparently to cover the vanity exhibited by his remark.

"You flatter yourself, I am sure," said the trapper. "It is clear in my mind," he continued, after a brief pause, "that the girl was not greatly impressed by her new master."

"I can't possibly be deceived in such matters," replied the Lieutenant, impatiently. "Her tears and the imploring look of her dark eyes as she turned her face towards me when we took our departure, appealed to me with a force I could scarcely resist. It would take but little persuasion to induce me to give up home and country and friends, and return to the simple, unconventional, little Ute rose, blooming——"

"There! there!" interrupted the trapper, "You're getting sentimental and inclined to be decidedly foolish. In my schoolboy days I remember to have read somewhere that 'until a man is thirty he regards every woman he meets as an angel.' It seems to me, Lieutenant, you afford a fair illustration of the truth of the rhymster's observation. The Indian girl has a pretty face, I admit, but that's all can be said in her favor. She's an Indian, and always will be one; a dirty, lazy——"

"Steady!" exclaimed the Lieutenant. "Let us drop the subject. It's getting uncomfortable for both of us, I am sure."

A few flakes of snow were falling when the Lieutenant and his companion mounted their horses to leave the Indian village, and their host calling attention to the dark clouds overhanging the village, urged them not to set out until the threatened storm had passed. But the officer was anxious to escape from the annoying conditions in which he had become involved, and refused to listen to the urgent appeals of the Ute. He soon recognized, however, that it would have been wise to have accepted the invitation, however distasteful a further delay in the village might have been. He had scarcely gotten well out of sight of the place when the snow began to descend in great blinding sheets that quite prevented his further advance. The animals stubbornly refused to face the storm and turned obstinately in the direction from which they had come.

"There's no help for it, Lieutenant," said the trapper. "We must return to the village as quickly as possible, and accept the old redskin's hospitality once more."

"I had rather go on," replied the officer. "A bed in the snow would be preferable to a robe in the lodge of the Ute."

"A bed in the snow," said the trapper, "might mean a sleep that knows no waking. The storms in this region last often for days, and while the snow falls no hunting or traveling will be possible. There is only one thing for us to do," he said very emphatically, "and that is, to hasten back to the village as rapidly as possible."

"Go ahead then," said the Lieutenant, submissively. "I'm getting a taste of how an individual feels when he first discovers he is afflicted with some incurable disease. The affair," he added, desperately, "sticks as tenaciously as the nether garment Hercules wore, and is as annoying, I am sure."

The animals moved forward rapidly as soon as they were permitted to travel with the storm, and in a few minutes the party was once more comfortably housed in the lodge it had recently vacated in the village. Kishnawau hastened to meet them and welcome them back. He attempted to make himself particularly agreeable to the Lieutenant, and informed him that his wife would be delighted to learn that he had returned. After smoking a pipe of killikinick with his guests he took his departure, promising to return later in the day.

Contrary to the predictions of the trapper and the Indian, the snow ceased to fall soon after the party had dismounted at the lodge, but as the clouds continued threatening it was deemed prudent to remain in the village until they had passed.

The people of the hamlet were anxious to show their friendship for the white hunters who had visited them, but they were poor, and their means at the time were limited to their immediate wants. They might possibly have united in preparing a feast for them, but Kishnawan had already given them one of remarkable liberality and another was unnecessary. Their daily lives, as a rule, followed hard, plain lines, almost entirely destitute of enjoyments, and nothing of a public character to which they were accustomed remained to offer the white chief and his companion, except, possibly, the honor of a dance.

When this diversion was eventually decided upon the snow was swept from the space in the center of the village and when the night had come on, the place was brilliantly lighted by the blaze of resinous woods collected for the purpose. As soon as the blaze sprung up an old Indian warrior, almost covered from sight by an immense blanket that fell from his head to his feet, seated himself in the space and be-

gan to pound on a drum which had been manufactured from a section of unbroken bark, taken from a small birch tree, and covered at the ends with the tanned skin of a coyote.

The honored guests of the occasion were provided with seats on a robe placed on the ground near the fire, and Kishnawau seated himself close by, in order that he might explain what occurred, if the guests should desire to know.

"Your people seem well fed and happy," said the Lieutenant, as he sat waiting for the dance to begin. "I presume they never know what it is to be hungry."

"Not often" replied his host. "The hunters usually bring much game to the village, and the people have plenty to eat. But sometimes in the winter, when heavy snows fall and the cold is severe, they find little to bring.

"At such times," he continued, "hunting is difficult and the warriors who go up in the mountains meet sometimes with strange adventures. It might please the white chief to hear of a strange thing that happened in the mountains not far away, many long years ago."

"I am sure I would be delighted," replied the Lieutenant.

Kishnawau twisted uneasily about on his seat for a moment, and nervously tucked the folds of the robe on which he sat, under his legs.

"A deep snow fell one day in the mountains," he began at last, "when Kishnawau's father was a boy, and a number of hunters who were out in the mountains were unable to return to the village. The weather was cold and the wood that lay on the ground, where the hunters had stopped was wet from the rain that had fallen before the snow began. The hunters succeeded after many trials in setting fire to a log, but it burned slowly, because of the water that had soaked into the wood from the rain. At last the fire burned fiercely and drove out the water in the log and sent it into the air in the form of a great wet cloud, like the mist that comes from the river on a summer morning. Suddenly, while the wet cloud was in the air, a cold wind struck it, and instantly froze it into a solid mass of ice."

The Indian paused for a moment and carefully scanned the features of his listeners as though he felt he had touched somewhat upon their credulity. Satisfied at last that his narrative was being received in good faith, he continued.

"After awhile the fire consumed all the log, but the great piece of ice that was once a wet cloud, still stuck in the air where it had frozen. On the following day the weather became warm again and the sun shone brightly on the cloud until at last it was loosened by the heat from its place in the air and fell with a great crash to the earth and

sunk deep in the ground, making a great hole from which the water of a spring finally burst forth and still continues to flow as the ice continues to melt."

When the Indian had completed his story the trapper burst into an apparently uncontrollable fit of laughter.

"Go up head, Kishnawau," he cried, "your genius as an originator of fictitious happenings is simply immense."

In one of his attempts at rhyming Bret Harte observes that:

"More laughter in the world would bring
The touch of nature nearer;
Good will would flourish 'neath its wing
And man to man be dearer."

But the Indian was evidently not in full accord, on this occasion at least, with the humorist's sentiment, and his manner clearly indicated that the "touch of nature" awakened by the mirth of his quest, had worked no "good will" between them. In the mind of the Ute the laughter of the hunter seemed simply a flagrant attempt to ridicule and possibly bring into question the truthfulness of the story he had just related to the Lieutenant, and turning upon him finally he glared at him threateningly.

"Oh, that's all right, Kishnawau," said the trapper. "Every word you uttered was simply truth itself. I was laughing at the wav those unfortunate hunters must have been splashed by the snow and the mud when the iceberg fell.

"But, by the by, Kishnawau," he continued, "did you ever hear of the cold weather they have sometimes up in the British possessions?"

The Indian shook his head gravely.

(*To be Concluded.*)

STRATEGY AND TACTICS OF THE RUSSO-JAPANESE WAR.

TENTH PAPER.

(July 15—September 15, 1904).

THE CAMPAIGN IN MANCHURIA.

THE situation of the main armies in Manchuria on the 1st of July, 1904, was described in the *eighth* paper, and in the *ninth* the gradual retirement and concentration of Kouropatkin's army, and the advance of the Japanese forces were referred to.

General Oku had occupied Kaichon (or Kaiping) on July 9th, and the operations of his army were thereafter confined to the plains of the Liao River. General Kuroki, on July 6th, had occupied Tsianchan (about 30 miles northeast of Saimatsi), east of Poliling Pass, thus turning the Russian left and compelling them to abandon some of the passes in the immediate vicinity. The Takuskan army was moving, at that time, on Haicheng.

Kouropatkin having been informed that important movements were taking place in rear of the I. army, he reinforced the III. Siberian Army Corps, under General Baron Keller, with the 9th Division (X. Army Corps), which had just arrived from Europe, and directed General Keller to make a forced reconnaissance toward Motienling Pass. This pass has an important strategic position on the main road to Liaoyang.

ATTACK ON MOTIENLING PASS.

On the night of July 16-17, General Keller attacked the Russian outposts with great vigor. The attack opened at 3 A. M. with infantry and artillery, and at 5 A. M. the Japanese outposts were forced back, the Russians deploying for an attack on the high ground west of the pass. The Japanese held their ground firmly, although the Russians made frequent attempts to turn the Japanese left. At 9 A. M., the Japanese having been reinforced by reserves near at hand, the Russians retired in the direction of Tienchuitshan (30 miles southeast of Liaoyang) and Dajuan or To-wan (30 miles east of Liaoyang), pursued by the Japanese. On the high ground between these two

points a portion of the Russians made a stand, covering Dajuan, or Ta-wan, between 2 and 4 P. M. The Japanese pursuit came to a stand at Yanseling Pass, but the pass itself they could not take.

The Russians lost about 1,000 men in this attack.

At the same time the other passes in the vicinity of the Motienling Pass, were attacked, but in smaller force. Two Russian battalions fell on the outposts in Sinkialing (or Sukuling) Pass (15 miles east of Motienling Pass), but were driven back by the Japanese at 1 P. M., the latter occupying the heights east of Makumenza, whence they opened heavy fire on the Russians retreating from Motienling Pass toward the Ta-wan. At Shankuling or Kankouling Pass (near Poliling Pass), a Russian force also attacked, but retired at the same time that the force at Motienling Pass retired, the Japanese pursuing for two or three miles to Shankauling Pass. At Simatang the attack was made at 8 A. M. and was not repelled till 4:30 P. M., when the Russians fell back to Hwangkiaputse. Sihkiaputse was attacked by a force advancing from Kiautan, but the attack was repelled at 1 P. M.

In this undertaking the Russians lost 1,900 men, the Japanese 43 killed and 256 wounded.

The attack failed principally because it was impossible to bring sufficient artillery into action on the difficult ground.

On July 18 and 19, the northern column of the I. Army advanced some 13 miles, and occupied, after some resistance Sihoyang (about 42 miles east of Liaoyang), where it effected communication with the adjacent column on its left through a small valley of a stream, a branch of the Taitsi-ho, which flows past Liaoyang.

The danger of these movements on the right of the Japanese line to the Russian troops still stationed at Tashichiao (railroad junction to Newchwang) and along the railroad, induced Kouropatkin to reinforce his line with the portions of the X. Army Corps then arriving, so that a complete Army Corps stood on each of the two principal northern roads along which the Japanese must advance toward Liaoyang; meanwhile, the Japanese right remained in position, sending out small parties to cover its flank towards the north, before which the Cossack Division, under Remenkampf, retired.

BATTLE OF TASHICHIAO.

At the same time, the II. Army, under General Oku, began advancing. It deployed in the direction of Dashitsao, or Tashichiao, the railroad junction to Newchwang, situated on the railroad about 20 miles southwest of Haicheng, an important strategical point.

On the heights at Tashichiao the IV. Siberian Army Corps had taken up a strong position.

On July 23d the Japanese began driving in the Russian outposts. The Russian front extended along the heights near Tashichiao, in an east and west direction for a distance of about 10 miles. The Japanese occupied a position along the heights about two miles southwest of the Russian main position, around Tapingling, the cavalry on the left.

The action opened with an artillery engagement lasting fifteen hours, in which the Russians held their own against superior numbers. At about 10 P. M. a detachment on the Japanese right succeeded in turning the Russian left around Tapingling, thus compelling the Russians to retire to Haicheng, after setting Tashichiao on fire.

Repeated attacks were made by the Japanese on the Russian center and here bayonet attacks were frequent and the opposing troops repeatedly engaged in hand-to-hand fighting.

The Japanese occupied Tashichiao on July 25th, their cavalry, which had been sent to the open ground on the left, taking possession of Yinkow (the port of Newchwang), which was at once repulsed as a landing place for transports.

The battle of Tashichiao cost the Japanese 12 officers and 136 men killed, 47 officers and 848 men wounded; while the Russians lost 37 officers and 894 men, killed and wounded.

The advance on Tashichiao was a part of a general advance on the left of the general Japanese line, with a view to concentrating on the Russian Army.

ENGAGEMENT AT PSHANLING PASS.

At the same time that the II. Army, under General Oku, was making its attack on Tashichiao, the Takushan Army, including the subdivision in Natseling Pass (about 20 miles southeast of Haicheng, and on the main road to the latter place) was again put in motion. The subdivision from Natseling Pass took Pshanling Pass in the main mountain ridge, and with the rest of the Takushan Army slowly advanced in the direction of Simutcheng, on the main road to Haicheng, about 10 miles southeast of the latter place.

This movement would in itself have forced the Russians to retire from Tashichiao.

BATTLES OF YUSHULINZA, YANGZULING PASS AND SIMUTCHANG.

On July 30th the entire Japanese Army advanced, and on the 31st attacked the Russian positions at Yushulinza* (on the main or most

*Called also Kushulinza, or Yushuling.

northerly road of advance against Liaoyang) about 25 miles southeast of the latter place. Yangzuling, or Yanseling, Pass* (on the road from Motienling Pass), and Simutcheng† (about 10 or 15 miles southeast of Haicheng.

Yushulinza, which is 4 miles beyond Shihoyen, a town on the slope of the hills on the main road to Liaoyang, marked the left of the Russian position. The Japanese attacked on the 31st, but were unable to take the position. On August 1st the attack was renewed, and the Russians were driven out and pursued for four miles. They retired toward Amping, half way between Shihoyen and Liaoyang.

In this engagement the Japanese lost 40 officers and 906 men. The Russians in this engagement and that at Yangzuling Pass, lost 290 officers, 1,500 men and 8 guns, besides 8 officers and 149 men prisoners.

Yangzuling Pass was also attacked on July 31st, but the Japanese were unable to take the principal positions, and bivouacked on the field during the night. On August 1st the attack was renewed, and at 8 A. M. the Russians were driven out and retired to Tahojuan (called also Tang-ho-yeng, or Tankoejuan), on the main road to Liaoyang, about 15 miles south of the latter place.

In this action the Japanese lost 8 officers and 286 men. The Russian losses in this engagement and at Yushulinza are given above.

General Count Keller, commanding the III. Siberian Army Corps, was among the killed.

At Simutcheng the Japanese attack commenced on July 30th, and lasted all through that day and the 31st. The Russians were strongly intrenched on the heights, and the fighting was very severe. The Japanese succeeded, however, in turning the Russian right, thus forcing them to retire to Haicheng, and thence to Aushanshan and Liaoyang. General Alexieff commanded the Russians at this point.

The Japanese lost 194 killed and 600 wounded; the Russians lost 29 officers and 1,000 men, killed and wounded, and the Japanese captured six guns and took 33 prisoners.

The weather was very warm, the thermometer registering 110 degrees Fahrenheit.

In these movements the Takushan Army and the II. Army, under General Oku, established communication with each other.

On August 3d the II. Army occupied Haicheng without opposition, and its cavalry brigade took possession of Newchwang.

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*Called also Kwan-sui-ten, or Lang tseling.

†Called also To-mu-cheng.

The I. Army, under General Kuroki, sent reconnaissance patrols and strong detachments northward over the Taitseho to secure its flanks.

GENERAL SITUATION, AUGUST 1ST, 1904.

The general situation of the two armies about August 1st was as follows:

The Russian Army extended practically along the railroad, on a front of about 50 miles, its right a little south of Anshantshan (about 22 miles southwest of Liaoyang), its left half way between Liaoyang and Mukden.

The various subdivisions were posted as follows:

The IV. and II. Siberian Army Corps on the right, occupying the ground between a point southwest of Anshantshan and Tankojuan (about 17 miles southeast of Liaoyang).

The III. Siberian Army Corps between Tankojuan and Anping (about 15 miles east of Liaoyang).

The X. Siberian Army Corps north of Anping and east of Liaoyang.

The I. Siberian Army Corps across the railroad, from the Taitsi-ho, southwest of Liaoyang, to a point about half way between Anshantshan and Tankojuan.

The XVII. Army Corps on the railroad north of Liaoyang.

The Cavalry Division of Remenkampf covering the extreme left, east of the railroad, about half way between Liaoyang and Mukden.

The rest of the cavalry west of Liaoyang.

The Japanese Army occupied an encircling position, extending over a front of miles, its right northeast of Anping, its left resting on the Liao-ho at Newchwang.

The various subdivisions were posted as follows:

The I. Army (Guard, 2d and 12th Divisions) on the right, covering the ground from the Taitsi-ho, 25 miles east of Liaoyang, southward to the main road to Liaoyang, about 30 miles southeast of that place.

The Takushan Army (10th and 5th Divisions) in the center, facing north, covering the ground north and northeast of Simutcheng (about 12 miles southeast of Haicheng).

The II. Army (6th, 3d and 4th Division) between Newchwang and Simutcheng.

The I. Cavalry on the extreme left, in the vicinity of Newchwang.

These positions were not materially changed before August 15th.

The armies on each side at that time were probably some 300,000 strong.

At Vladivostok the Russians had one-half of the 8th Division and probably the 1st Siberian Division; at Port Arthur the 4th and 7th Divisions.

The Japanese had at Port Arthur the 1st, 11th and 9th Divisions.

REINFORCEMENTS.

In Russia the V. and VI. Siebrian Army Corps of the military district of Kasan, were ordered mobilized, finally also the XIX. Army Corps.

The Army of Manchuria was also to be reinforced by 2 Cavalry Divisions (1 Orenburg and 1 Dan Cossack), 1 Cavalry Brigade (Caucassian Volunteers), 1 field mortar regiment of 4 batteries with 6-inch mortars, 1 East Siberia Siege Train, and a number of East Siberian Mountain Batteries, all of which were ordered mobilized.

Of the troops previously mobilized, the X. Army Corps had arrived complete at Liaoyang before the battles of July 31st, 1904; while the XVII. Army Corps reached that place about the early part of August.

These were to be followed in succession by the V., VI., and I. Army Corps.

The Siberian Railroad had required up to this time about 40 days to transport an army corps. Now its capacity was increased to 11 pairs of through trains daily. The road around Lake Baikal was completed about August 15th.

On July 6th the Siberian Landsturm (or last levy) was also called out, forming 4 brigades of about 6,000 men each, which were utilized to protect the railroad outside the sphere of operations.

In Sackalin (an island in the sea of Okutsk) the Landsturm had been previously called out, and was being trained for military service.

Japan ordered the organization of an expeditionary corps for Vladivostok.

The following *reserve* regiments were also ordered to be organized from the reservists:

52 Infantry Regiments of 3 battalions* each,
36 Cavalry Regiments of 3 squadrons† each,
24 Batteries of 8 guns each.

THE BATTLE OF LIAOYANG.‡

(August 30 to September 3, 1904.)

The concentric advance of the Japanese armies, under Marshal Oyama, on Liaoyang, was so far completed in the early part of August

*Each battalion 600 men. †Each squadron 150 men.

‡This account is mainly from *Marine Rundschau.* J. P. W.

that the different armies were in communication one with another, and a combined attack could be planned.

The advancing armies were therefore halted, and the attack was prepared. Reserves were placed in position, ammunition and other supplies were brought to the front, and the connection between the different armies was perfected.

During this interval the Russians improved their fortification to the south and west of Liaoyang, which had been preparing for months, and absorbed the main part of the V. Siberian Army Corps in the ranks of the army.

On August 5th a strong Japanese naval force, composed of gunboats and torpedo boats, proceeded up the Liao River to cover the Japanese left flank.

On August 23, the three Japanese armies formed an arc surrounding Liaoyang from the east to the southwest, at a distance of about 27 miles. The right wing was formed of Kuroki's army, somewhat loosely aggregated, stretching out northeastward, its right resting on the southern bank of the Taitse-ho. It was composed of the Guard, Second and Twelfth Divisions.

On the left of Kuroki's army stood Nodzu's army, composed of the Fifth and Tenth Divisions. It was in communication with Kuroki's army only by signal stations.

On the left wing General Oku's army, composed of the Fourth, Third and Sixth Divisions, was posted, its left resting on the railroad north of Haicheng. One brigade was pushed out in the plains of the Liao River, and the Cavalry Brigade was in rear of the extreme left beyond the railroad.

The Japanese army thus comprised eight Divisions with their reserve brigades, the First Cavalry Brigade, and 36 Batteries composing the two independent Artillery Brigades (besides the Batteries belonging to the Divisions). The total strength of the Japanese forces was about 200,000 men, with 550 guns.

The Russian outpost line extended in an arc along the chain of heights from Anshantshan on the railroad eastward and northward through Auping to the Taitse-ho, at a distance of about 10 miles from the Japanese main line, although the distance from the Japanese outposts was only about 3 or 4 miles.

Behind the Russian outpost line stood the I. Siberian Army Corps, east of Shaho* on the railroad (12 miles southwest of Liaoyang), the III. Siberian Army Corps (west of the main road from Fengwang-

*Or Shahopu.

cheng) and the X. European Army Corps (west of Auping), the three corps occupying the roads leading to a line of earthworks running from the railroad in a curve around to the Tietse-ho, at a distance of about four miles from Liaoyang, and closing the routes from the mountains to the plains.

These earthworks were armed mainly with field guns, but were otherwise practically semi-permanent fortifications. Their only drawback was that in some places in the southeast they were commanded by the surrounding heights.

In and about Liaoyang, which was surrounded by another inner line of earthworks on the southwest, south and east, the II. and IV. Siberian Army Corps and the mass of the Cavalry were posted in reserve.

On the right bank of the Taitse-ho stood the XVII. Army Corps and a Cossack Division, the former having detached a portion of its forces to the eastward. Under the protection of the XVII. Army Corps the recently arrived V. Siberian Army Corps was assembling.

The Tatise-ho was bridged by a number of pontoon bridges, besides the railroad bridges.

The Russian army at that time had a strength of about 180,000 men, and in field artillery it was inferior in number of guns to the Japanese.

Marshal Oyama's plan was evidently to hold the Russians on the south and southeast, at the same time making a turning movement with General Kuroki's army, with a view to cutting the Russians off from their line of retreat.

Between the 24th and the 29th of August the Japanese carried out their plan, first advancing from the south, then along the entire line, against the Russian first line, forcing the latter to retire to the principal or fortified position.

The Russian troops fought splendidly, and the Japanese took but few prisoners. Only one battery was taken, in the south of the line. A brigade, under Major General Rutkowski, attempted to retake it, but failed, its leader falling in the attack.

Nevertheless, the Japanese attained their object: General Kuroki succeeded in forcing back the Russian troops opposed to him, and in pushing out his Divisions to the north toward the Taitse-ho, and throwing two bridges over the stream. The Russian patrols and outposts did not discover these preparations.

Moreover, General Kuroki at this time was in communication with the main army only by telephone, which was not interrupted by the Russians.

On August 30th Marshal Oyama began the actual attack, and on the 30th and 31st the two southern armies repeatedly advanced against the Russian positions; the losses on both sides were very great. The Japanese left wing threatened constantly to outflank the Russian right, and in spite of the continued pressure at all points, General Kouropatkin saw himself forced to put in most of his reserves (the IV. Siberian Army Corps and the Seventy-first Division of the V. Army Corps) on his right, in order to extend his line there, which soon reached west of the railroad into the plain.

Meanwhile, on the eastern side, General Kuroki's army, leaving one Division (or less) to make a frontal attack on the Russian lines opposed to it, began under cover of this attack to cross the stream with the main body of this wing as early as August 30th, intrenching on the heights of the farther bank, after the weak forces of the Russians posted there had been driven away.

General Kouropatkin did not learn of this movement until the 31st, by which time it was already completed, and a portion of General Kuroki's army had begun to push northeastward in the direction of the chain of hills near the Yentai* mines (about 15 miles northeast of Liaoyang, at the terminus of a short branch railroad).

The situation on August 31st, was therefore as follows:

The Japanese had the Guards and Second Division across the Taitse-ho at a point about 20 miles east of Liaoyang, with subdivisions working their way toward Yentai; the Twelfth Division was still to the westward of Auping, covering the main road to Liaoyang at a point about 12 miles southeast of Liaoyang; the rest of the army in an arc extending westward and northwestward from the main road across the railroad at a distance of about ten miles from Liaoyang in the following order from right to left: Fifth, Tenth, Fourth, Third and Sixth Divisions, the extreme left of the Sixth Division resting on the road west of the railroad; the cavalry still farther west and in rear of the left flank.

The Russians had their main cavalry force on their extreme right, about nine miles directly west of Liaoyang; main line in an arc around Liaoyang at a distance of about six miles from that place, occupying the fortifications, extending from the road west of the railroad southeastward and eastward across the railroad and the main roads to Liaoyang to the Taitse-ho, in the following order from right to left: Seventy-first Division (V. Corps, west of the railroad), I., III., and X. Corps, with the IV. Corps in immediate reserve behind the I. and III.

*Called Fansheng on some maps, the junction on the main road being called Yentai or Jantai.

Corps; close around the western and southern part of Liaoyang the II. Corps was posted; about nine miles east of Liaoyang, north of the Taitsi-ho the XVII. Corps was stationed, with a part of the Cavalry; and farther north, near the railroad junction to Yentai, the Fifty-fourth Division (V. Corps).

General Kouropatkin, seeing his line of communications and his left flank threatened, decided to throw his main army against the troops under General Kuroki, leaving only sufficient forces on the south to hold in check the other two Japanese armies. But this movement rapidly took the form of a retreat.

On the night of August 31st, the Cavalry and the I. Corps crossed the river, followed on September 1st by the X. Corps, while the rest of the Russian army (Seventy-first Division and IV. Corps) withdrew to the inner lines around Liaoyang, and occupied the latter in conjunction with the II. Corps, which was already there.

The Japanese promptly occupied the other line of earthworks, but were too thoroughly exhausted to pursue. Their artillery, however, took up positions whence it could take the retiring Russians under fire, and did some damage to the railway transportation.

Meanwhile, General Kouropatkin had directed the XVII. Corps to hold the right bank of the river till the main body crossed, and sent the Fifty-fourth Division (V. Corps), which stood farther north, to occupy the hills, in the vicinity of the Yentai mines, which barred the way of the Japanese.

On the evening of September 1st, the rear guard of General Kuroki's forces succeeded in capturing the advanced position of the XVII. Corps on the hills of Sykuantun (or Sui-kwan-tun). But on the morning of September 2nd, this Corps, at considerable loss, however, retook the position. The Fifty-fourth Division had, in the meantime, occupied the hills assigned to it, and found the position so strong that the commanding officer, General Orloff, decided to send a part of his troops to assist the advance of the XVII. Corps. This detachment was met on its way by a portion of General Kuroki's forces, which had been sent out to intercept it, and forced to retire. The Japanese followed up this attack with such energy that the troops occupying the position on the hills were also carried along and fell back to the protection of the I. Corps, then advancing to the scene of action. General Orloff was wounded, and General Fomin was killed.

General Kuroki, as is readily seen, had put himself in a very dangerous position, separated as he was from his train and supplies, as well as from the main army. But by the capture of this position on the hills near Yentai he had redeemed the situation sufficiently to take

up a defensive position, in which he felt comparatively secure from the attacks of the exhausted Russian troops.

General Kouropatkin, therefore, ordered a retreat northward, which began on the evening of September 2nd, leaving a flank guard between Yentai and the Taitse-ho, to prevent any further advance on the part of General Kuroki. The troops of the latter were too much exhausted to pursue; the retreat, therefore, was effected without serious interruption or interference, partly by rail, partly by ordinary road; even the supplies in Liaoyang, in spite of constant bombardment of the railroad station, and the attacks of the armies of General Oku and Nodzu on the inner line of works, were nearly all removed.

On the night of September 3rd, General Kouropatkin vacated the positions, which were occupied, together with the town, by the Japanese, on the 4th. The Russians burned their pontoon bridges behind them, and had set fire to the railroad bridge, but the Japanese saved the latter and repaired it in a few days. No pursuit was attempted. On September 5th the Japanese occupied Yentai.

The losses of the Japanese (between August 24 and September 7) amounted to 17,539, of the Russians, 16,490. The Japanese losses included 136 officers killed and 464 officers wounded; the Russian losses, 516 officers killed and wounded. General Oku's army, on account of its repeated frontal attacks, suffered most. In General Nodzu's army one regiment, in its repeated attacks on the inner line of works at Liaoyang, lost about 1,300 men, most of the companies being ultimately commanded by non-commissioned officers.

The Russians retired toward Mukden. The Japanese gradually advanced their outposts to the Hainho (south of Mukden), and pushed out detachments to the eastward, occupying the Taling Pass (about twenty miles southeast of Mukden) on September 25th. General Oku sent a detachment westward toward Sinmingting (about thirty-five miles west of Mukden), the terminus of the railroad from Kinchon and Pekin. The main body of the Japanese army remained at Liaoyang and Yentai, and the former was organized as a base of operations for the winter campaign.

COMMENTS.

The tactics of this battle in general are simple and in the larger movements illustrate no new principles. The Russians had taken up a well-fortified, defensive position, covering Liaoyang. Against this position the Japanese advanced concentrically, until within striking distance, when the outflanking of the Russian *right* flank began, General Oku's energetic attacks on that side compelling the Russians to

put in a lage part of their reserves to prevent that flank from being turned.

This having been accomplished the real outflanking movement, namely that of the right flank of the Japanese line, began.

Although slightly superior to the Russians in point of numbers, Marshal Oyama had not sufficient strength to attempt to outflank them on both flanks at the same time, consequently he first forced the Russians to move their reserves toward their right flank, and then began to turn their left.

As early as August 30th, however, General Kuroki was only within signaling distance of the adjacent part of General Nodzu's army, and later on he became entirely separated. This was General Kouropatkin's opportunity to drive a wedge between the isolated Japanese right wing and the rest of the army. But it must be remembered that the Russian reserves were then on the extreme right of their line, and the country between General Kuroki and the rest of the Japanese army was very difficult. Nevertheless, the II Corps at Liaoyang, the XVII Corps and the cavalry on the Russian left flank were available for an advance up the Tanho toward Auping, a movement which would have cut off General Kuroki entirely from the rest of his army.

The Russian service of security and information, or its *reconnaissance* work, must have been defective, otherwise General Kouropatkin would have had earlier notice of the General Kuroki's flank movement.

The entire flank march is an excellent commentary on the great *mobility* of the Japanese troops. Without it the Japanese could not have succeeded so well in the mountains and difficult country they were compelled to traverse.

The battle illustrates the effect of pressure on the flanks and threatening the line of communication. But neither would have succeeded without the energetic attacks along the whole front, especially at the center. The effect of threatening the communication began to be evident immediately, since General Kouropatkin began to retreat as early as August 31st, when he gave up his strong line of earthworks south of Liaoyang, and the transportation of stores and troops by rail from Liaoyang commenced.

The opposing armies, although originally facing southeast and northwest, respectively, faced generally south and north, respectively, just before the battle, and since the railroad (the Russian line of communication) runs northeast from Liaoyang, the flank most readily reached by the Japanese (in spite of the difficult ground) was the Russian *left* flank. An attack on the Russian right would merely have

forced the Russians back on their line of communication. But as it was the Japanese did not reap the full benefit of their strategic advance, because the safety of General Kuroki required such strong efforts in the other portions of the line that the troops were too greatly exhausted to pursue properly after the battle was over.

Another reason for turning the Russian left flank, in preference to the right, was the fact that the Japanese are comparatively weak in cavalry, and the open ground on the Russian right would have favored the Russian cavalry.

These are the principal points in the general tactics of the battle. Now, with reference to the tactics of the separate arms, we find, in the first place, that *infantry tactics* must undergo some changes. The Japanese advanced in comparatively *dense* lines, sometimes almost shoulder to shoulder, and *bayonet charges* were frequent. These facts illustrate the danger of drawing conclusions from insufficient data. The South African war seemed to indicate that bayonet charges were relegated to the past, and the open order of attack had been established in the Franco-Prussian war. But this seems to be merely a matter of the "man behind gun" on either side. If one side has the courage to advance with the bayonet and the other side is brave enough to stand and receive it, close contact must take place. The armies must, therefore, be supplied with a substantial bayonet,—one that can put an enemy out of action promptly. As regards open or close order in attack, the object of the infantry attack is to defeat the enemy and drive him out of his position; it has long been a question among tacticians as to whether the open order formation could always bring the proper force of men up to the decisive range; if not, then a closer order must be resorted to, provided the men will stand the increased losses.

As regards *cavalry tactics* the war has thus far given the world little of real value. The famed Cossacks have added no new laurels to the deeds of that arm.

In *field artillery tactics*, however, some new lessons are taught. The *massing* of artillery on the battlefield was the great lesson of the War of 1870-71, but this principle must now be modified by another which long range, rapidity and accuracy of fire, and smokeless powder have necessitated, namely, the importance of *concealment*. The massing of artillery is still a correct principle, and superiority in number of guns still has its effect, but it must be combined with proper concealment, hence the guns cannot (as in 1870) be massed in a small exposed area, but must be scattered and concealed, and yet capable of concentrated *mass* fire, and *indirect fire* (which, by the way, was often

employed with splendid results in 1870-71). This assumes a greater significance. In all indirect fire, however, it is absolutely essential to have good *observation* of the effects of the fire, otherwise it is of no avail.

The importance of *training* in field artillery firing (that is, in target practice), is also illustrated in this battle, for the Russian gun was superior to the Japanese in range and in rapidity of fire, but the latter made up in its superior training what it lacked in material, and the Japanese guns were better massed.

The dispersion of the guns and indirect fire also make it important that greater attention must be paid to signaling in the artillery, not only to keep up communication between the parts of an artillery battalion, but also to convey the necessary information from the point of observation of the effects of the fire to a battery firing indirectly (at a target not visible from the battery).

These are the important lessons of this first great battle of the war, and it is seen that they are not entirely new, but have all been anticipated by the thinking and reasoning spirits in the world's armies.

*A STUDY OF ATTACKS UPON FORTIFIED HARBORS.**

THE CAPTURE OF WEI-HAI-WEI AND THE CHINESE FLEET IN THE JAPANESE WAR IN 1895.

A SUCCESSFUL COMBINED ATTACK UNDER MODERN CONDITIONS.

THE Japanese having conquered Korea and seized an advanced base for the navy at Port Arthur while the army was supplied from several ports along the coast of Korea, and an additional march upon Pekin being contemplated, it was impossible to permit the Chinese fleet, based upon the fortified port of Wei-hai-wei, to threaten the oversea communications between Japan and the Gulf of Pechile.

It was decided to support the effort of the Japanese fleet against the Chinese by sending a force of 25,000 troops with 12 field guns, 36 light mountain guns, and 12 mortars, to operate against Wei-hai-wei. This force sailed from Talienwan in three divisions on the 19th, 20th and 22d of January, 1895. On the 18th and 19th three Japanese cruisers bombarded Tungchow, 75 miles west of Wei-hai-wei to create a diversion. The first transport fleet was accompanied by the "main" and second squadrons of the naval fleet (8 ships) and landed at Yung Chung Bay on the northeast extremity of Shantung after a day's passage.

The harbor here is a very good one in winter weather. The landing was opposed by 300 Chinese with 4 guns, but they were dispersed by a few shots from one of the men-of-war, and the landing was complete on the 24th.

During this period of disembarkation the transports were guarded by a division of gunboats while the heavy ships remained at sea, with a division close up against Wei-hai-wei which was re-enforced each night by 10 torpedo boats.

The general advance to Wei-hai-wei, about 35 miles off, was begun on the 26th with the army in two columns, one marching by the coast road and one by the parallel road 4 miles inland. On the 28th the main body was only 6 or 8 miles from Wei-hai-wei

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and steps were taken to reconnoitre. The heads of columns were at Pao-chia and Chung-chia-kou-tzu, respectively.

The defenses of Wei-hai-wei fall naturally into three groups, those on the islands of Jih and Liu-kung, those on the main land at the northwestern entrance, and those on the mainland at the southeasern entrance. A few small works also commanded the road to Chefu.

ARMAMENT.

Tiao-peh-tsu	3	24-cm.	9.4-inch.
Eastern end harbor...	2	28-cm.	11.2-inch.
Lu-chueh-tsu	4	24-cm.	9.4-inch.
Lu-chueh-tsu	2	21-cm.	8.3-inch.
Lung-miao-tsu	2	15-cm.	5.9-inch.
	13		

Four forts on the land side mounted to protect above:

No. 1.	Hsieh-chia-so	4	15-cm.	5.9-inch.
No. 2.	Yang-feng-ling	2	12-cm.Q.F.	4.7-inch.
No. 3	Mo-tien-ling	4	12-cm.Q.F.	4.7-inch.
No. 4.	Earth-work	2	12-cm.Q.F.	4.7-inch.
		12		

On Jih Island:

2	26-cm.	10.3-inch.	? were disappearing.
2	12-cm.Q.F.	4.7-inch.	
4			

On Liu-Kung:

Eastern end.....	2	24-cm.	9.4-inch.
Western	6	24-cm.	9.4-inch.
	8		

There were also disappearing guns.

On northern shore near west entrance:

3 forts (numbered coming from sea):

1st	6	24-cm.	9.4-inch.
2d	2	21-cm.	8.3-inch.
3d	2	15-cm.	5.9-inch.
	2	21-cm.	8.3-inch.
	12		

Back of these forts for protection against land attack there were two forts:

1st	2	15-cm.	5.9-inch.
	2	12-cm.Q.F.	4.7-inch.
2d	2	12-cm.Q.F.	4.7-inch.
	2	15-cm.	5.9-inch.
	8		

Total of sea-coast guns:

2	11.2-inch.	4	5.9-inch.
2	10.3-inch.	2	4.7-inch.
21	9.4-inch.	—	
6	8.3-inch.	37	

The booms consisted of steel hawsers 3 inches in diameter, 3 yards apart, floated on large timbers about 9 meters apart.

The garrison included 1,500 men on the islands, 3,000 in the eastern forts and 3,000 in the western forts. The coast forts were all armed with modern heavy B. L. R. guns.

The Chinese fleet inside the harbor consisted of 2 battleships, 5 cruisers, 1 sloop, 7 gunboats, and 11 torpedo boats, manned by 4,000 bluejackets. The entrances were obstructed by mine fields and booms.

On the mainland at the eastern entrance there were five coast forts, two of which commanded Three Peak Bay. A line of parapet ran along to the west from Yang-feng-ling, and at its most commanding point was a small fort named Mo-tien-ling, armed with field guns; another smaller one was situated a little to its left.

The high peak 3 miles south of Yang-feng-ling commanded a view of the entire locality, and at its foot a small stream ran into Three Peak Bay. This stream was frozen.

On January 29, the Japanese drove in the enemy's line on the southeast, and the right column established its outpost line from Three Peak Bay to the high peak, while the left column kept abreast of it.

On January 30, at daylight a general attack began. The left column with very little difficulty carried the ridges between it and the harbor in less than three hours, and then a battalion pursued the Chinese along the beach to the west until it came under the fire of some Chinese gunboats.

The right column moved against the key position of Mo-tien-ling, which fell in less than two hours without having inflicted

much loss on the Japanese in spite of the supporting and enfilading fire from Yang-feng-ling. Shortly after, the other small fort was carried, so that the Japanese now held all the land defenses on the eastern end and soon took Lung-miao-tsu and turned its guns against the Chinese fleet and island forts. Hereupon the Chinese battleship Ting Yuen, which, with the Chinese gunboats, had held back the Japanese infantry, steamed up to the fort and silenced it in half an hour.

As the army started its movement 6 ships of the Japanese light division steamed into Three Peak Bay and opened a long-range fire on the two eastern forts which lasted till nearly noon.

The Japanese troops on the crest above these forts now experienced a heavy fire from them (the forts) as well as from the Chinese fleet, but the Japanese held a very commanding position and replied by a heavy fire from their mountain batteries and from the captured field guns at Mo-tien-ling.

Shortly after noon, Yang-feng-ling caught fire and was abandoned, and Hsieh-chia-so was immediately evacuated; five minutes later an explosion in Tiao-peh-tsu caused its garrison to withdraw. All these retreating troups suffered heavily as they ran along the shore to the town.

The Chinese admiral now landed a party of bluejackets who made a bold attempt to destroy the guns in the remaining two forts, but they were too late, and before 1 p. m. the Japanese occupied them. The Japanese had brought bluejackets from Talienwan with the army for the express purpose of manning the captured forts, so they were able in half an hour to open fire on Jih with three out of the four 9.4-inch guns in Lu-chueh. This drew the attention of the Chinese forts and ships, which concentrated on Lu-chueh and disabled two of the guns; the other did not cease fire till 4 P. M., when the Chinese ceased also.

This ended the day's fighting. All the eastern forts were carried by the Japanese, who then controled one end of the eastern boom and the submarine mines there. One Japanese division spent the night about the captured eastern forts and the other remained south of the southern part of the harbor. This night the Japanese admiral attempted to send the torpedo boats inside the harbor, but in his haste he neglected to warn the army, and the boats were driven back by their own troops.

On January 31, preparations were made for future operations; particular efforts were directed to putting the guns of the captured

seacoast forts in condition for use. A projected torpedo boat attack was abandoned on account of a gale with snow.

On February 1, the left column moved towards Wei-hai-wei by a long sweep over the hills in a heavy snowstorm, the direct road along the coast being covered by the Chinese fleet. The weather was so bad that with the exception of a single squadron the blockading fleet withdrew to Yung-Cheng Bay.

On February 2, the left column took unopposed possession of the western forts, whose guns had been disabled by a party of Chinese sailors sent for the purpose by their admiral when he saw the soldiers deserting.

The work now remaining for the Japanese forces was the reduction of the island forts and the capture or destruction of the Chinese ships by means of the navy, aided by the captured forts.

The 3d of February was fine and both sides carried on a heavy fire; the Japanese fleet and the eastern forts bombarded the eastern works on Liu-kung. The forts continued to fire on each other during the night. At night the torpedo boats attempted to cut and remove a part of the boom, but failed, although they found a narrow and difficult passage between the end of the boom and the mainland.

On the night of the 4th a section of the boom 100 yards long was removed, and at 3 A. M. on the 5th, after the moon had set, 10 torpedo boats organized in two flotillas started into the harbor, but only 8 got by the obstructions; the others got ashore. Only 4 boats actually attacked, firing 8 torpedoes; of the others, one had her tubes frozen up, and the others were injured themselves or turned aside to aid the cripples. The first flotilla to pass in moved to the western shore before attacking, but the second had lost so much time at the boom that it moved straight on the Chinese ships before Liu-kung, where a gunboat and torpedo boat lay in front as pickets. The Ting Yuen, battleship, was sunk in shallow water by a torpedo, while the Japanese lost one boat and two others were so badly damaged as to be sent to Port Arthur for repairs.

On the following night the first flotilla of 5 torpedo boats was sent into the harbor at 4 A. M., while the other two flotillas made a demonstration at the western entrance. The attacking flotilla ran to the west side of the harbor and then attacked the fleet as on the previous night, firing 7 torpedoes and then retired, having suffered no damage. In the morning 2 Chinese gunboats and a small transport were found to be sunk.

On the 7th, the Japanese fleet, at long range, and the captured forts opened a general bombardment and the fort on Jih was silenced by those south of it. During the bombardment 11 Chinese torpedo boats left the harbor by the west entrance and ran for Chefu. All were captured or destroyed by the first flying squadron.

The absence of this Chinese flotilla enabled the Japanese to place twelve 9-cm. mortars near one of the western forts so as to bring an artillery fire on the west end of Liu-kung and on the Chinese fleet. By their R. F. and machine gun-fire the Chinese boats had prevented all movements of the Japanese troops about the western forts.

On the nights of February 8-9 and 9-10 two sections of the boom were destroyed.

On February 11 there was another bombardment and on the of the eastern forts sunk a Chinese cruiser while the new mortar battery on the western mainland silenced the western fort on Liu-kung.

On February 11 there was another bombardment and on the 12th the Chinese offered to surrender. Negotiations followed and the surrender was completed on the 16th.

The losses of the Chinese on Liu-kung were not very heavy and should not have brought about a surrender.

The bombardments by the Japanese fleet were intended merely to draw off some of the Chinese fire from the eastern forts, and the ships, therefore, kept at long range—4,000 to 6,000 yards. They lost 8 killed and 34 wounded in all.

The campaign of Wei-hai-wei had a purely naval objective, the destruction of the Chinese fleet; nevertheless, as in previous campaigns, so here, we see the army taking a principal part, although the territory about Wei-hai-wei was of no importance to the general plan of invasion.

But here we see for the first time that the heavy ships of the navy wisely decline to seek a close fight and confine themselves to a long-range and consequently ineffective cannonade.

The auxiliary craft, the torpedo boats, on the contrary are very prominent and take a decisive part in the destruction of the Chinese fleet, which is the sole objective. But this action of the torpedo boats was possible only through the previous success of the army in occupying Tiao-peh-tsu, and the southern mine field firing station. Thus the attacking army's action disabled the mine fields. On the other side the great support which the Chinese ships lent the defending troops is very remarkable, and the oppo-

sition offered by the torpedo boats to the western Japanese troops is even surprising.

SANTIAGO.

The campaign against Santiago is a very instructive one as to the attack of fortified harbors. As it was so recent, what was done there is well known to all, and I shall merely offer some observations on the plan of campaign.

The declaration of war was made for the object of delivering Cuba from Spanish occupation, and Cuba was necessarily the principal theater of operations. The Spanish army of occupation could be brought to terms either by starving it into surrender by a blockade of the island, which was already devastated and disordered, or a field army could be thrown into the island to attack the Spaniards.

The first plan was not seriously considered, not only because the United States navy was not thought strong enough to surround the island with a close blockade, but also because the inhabitants of the island would suffer with the Spaniards.

The second plan was favorably viewed and the administration wished to put 70,000 men ashore in Cuba near Havana to oppose the Spanish army in the western part of the island, and it was expected that the operations of this army would be the principal feature of the war. As such an army did not exist at the outbreak of the war, it was necessary to recruit and organize it.

Success, however, would be almost sure to fall to that one of the two combatants who should preserve his communications with home. As Cuba is an island and the sea is the only means of communication, it was impossible for the United States to think of launching an army against the principal Spanish position about Havana until a decisive naval battle should enable the army to embark without any anxiety for the subsequent security of communications.

Accordingly the news of the departure of Cervera's squadron for the West Indies was welcome to the administration, as it hastened the solution of the problem by bringing the Spanish fleet, an essential factor in the situation, within the theater of operations.

When reports reached Washington that Cervera had entered Santiago de Cuba it was the immediate wish of the Navy Department to verify the news, and then retain him under observation until a sufficient force could be assembled to destroy him. Although the defenses of Santiago were far from strong, yet the

guns and mines offered proper support to each other, besides having the Spanish fleet in reserve, so that were the navy to attempt to force its way in alone it would very possibly lose a ship or two. In the threatened conditions of the relations of the United States with continental Europe it was impossible for the administration to contemplate with equanimity even the smallest reduction in our naval force, and imperative orders were sent to Admiral Sampson not to take undue risks against forts.

For these reasons it was arranged by the War and Navy Departments, at the suggestion of the latter, that as soon as the navy should blockade the Spanish fleet, a sufficient force of troops should be sent to aid the navy in opening the harbor preliminary to attacking the Spanish fleet.

On the 27th of May the Navy Department informed the War Department that it expected soon to be able to call for the army to move. On May 29, a sufficient force arrived before Santiago to make the blockade effective, and the same day it verified the presence of the Spanish fleet within, and reported the facts to Washington by cable from Hayti. On May 31, General Shafter was directed to move his army corps to Santiago in the following terms:

". . . You are directed to take your command on transports, proceed under convoy of the navy to the vicinity of Santiago de Cuba, land your force at such place east or west of that point as your judgment may dictate, under the protection of the navy, and move it on to the high ground and bluffs overlooking the harbor or into the interior, as shall best enable you to capture or destroy the garrison there; and cover the navy as it sends its men in small boats to remove torpedoes, or with the aid of the navy capture or destroy the Spanish fleet now reported to be in Santiago. . . You will cooperate most earnestly with the naval forces in every way, agreeing beforehand upon a code of signals. Communicate your instructions to Admiral Sampson and Commodore Schley."

If each clause in the first and principal sentence of this order is duly weighed it becomes apparent that it was the intention of the War Department to prescribe a movement for the capture of the garrisons of the harbor forts, for the purpose, as the order explains, of covering the navy in its work of clearing the channel by its small boats. As an omnibus clause, indicating the scope of the entire campaign, the sentence concludes with the general direction, "with the aid of the navy, capture or destroy the Spanish fleet." Unfortunately there exists a verbal ambiguity in the

construction of the sentence (very possibly due to a desire to facilitate the enciphering) and this ambiguity, if the clause referring to covering the small boats of the navy be not fully appreciated, might allow the recipient to regard as his objective the garrison of Santiago.

It is thus seen that the administration was not contemplating the expedition to Santiago as a substitute for the great military enterprise against Havana which it had debated a month earlier. It was not even a diversion in favor of the Havana campaign. On the contrary, the expedition to Santiago was intended as and ex-expected to be solely an auxiliary to the naval campaign which was seen to be a necessary preliminary to any field operations against Havana.

How correctly the administration viewed the situation, as one governed by the question of sea-communication, is apparent when we recollect that the report of a Spanish squadron on the north coast delayed the departure of the expedition until it was shown to be unfounded. Nevertheless the administration did not look as deeply into the question of Spanish communications as did Admiral Sampson, who telegraphed to Washington on June 26 that in his belief success at Santiago would terminate the war.

On June 1, the arrival of Admiral Sampson at Santiago made the blockade an effective one. At this time a reserve squadron was fitting out in Spain and news of its completion was daily expected. Owing to its central position with regard to the two theatres of war in the West Indies and the Philippines, it had a free choice of its field of operations, and at Washington it was believed to be sufficiently strong to turn the balance of strength in either field.

As General Shafter's force was delayed at Tampa for lack of transportation, so that Cervera was temporarily secure from attack, the Navy Department became very anxious to contain his force in order that Admiral Sampson might detach against the Spanish reserve squadron. The collier Merrimac was therefore sent into the channel and sunk there on the night of June 3, in order to prevent the egress of Cevera's squadron. On June 6, the forts at the harbor mouth were bombarded and silenced by the fleet, but suffered and inflicted no material damage. Although the forts were thus shown to be unable to oppose the fleet, the topography of the entrance was such that the heavy ships could not cover and protect the small craft from infantry fire should they be sent to clear the channel of mines and obstructions. In

reporting the affair Admiral Sampson urged the immediate despatch of the troops, and still erroneously believing that the Merrimac closed the channel, he suggested that delay in the arrival of the army would give the Spaniards an opportunity of removing the ships' guns to add to the land defenses, and stated that 48 hours after the arrival of the troops the city and fleet would be captured.

On June 10, the lower part of Guantanamo Bay was occupied by the fleet as a base for carrying on the blockade of Santiago and a battalion of marines was landed to secure the ships from annoyance by the enemy on shore.

On June 16, the forts at Santiago were bombarded again and readily silenced. On June 20 the army arrived off Santiago and after consultation between General Shafter, Admiral Sampson and the commander of the Cuban irregular troops, it was agreed that the army, assisted by navy boats, should land about 18 miles east of the harbor and march to attack the forts at the harbor mouth entrance, and that, to facilitate the landing, feints should be made both east and west of the entrance and that the navy should shell the landing place in order to drive away any possible opposition. The 21st was occupied in arranging details and issuing necessary orders. On the 22d the disembarkation began. On this day General Shafter wrote to Admiral Sampson saying he would advance on Santiago as soon as he could and requested Admiral Sampson "to keep in touch during the advance and be prepared to receive any message I may wish to transmit from along the bluff or any of the small towns and to render any assistance necessary," thus showing his intention of attacking the harbor forts. About 6,000 men were landed on the 22d and a strong force was sent to the west, and seized a second landing place about 8 miles down the beach, where troops and stores were landed on the 23d. About 6,000 more troops were landed this day and all the troops, 16,000, were on shore on the 24th, but it was very difficult to establish a reserve of stores, as landing on an opeu beach is not easy. The orders for the 24th of June contemplated the retention of a position near the landing place until a sufficient reserve of stores had been accumulated on the beach; but General Shafter's headquarters remaining on board ship, the senior officer present, upon his own responsibility, directed an advance upon the rear of Santiago, and committed the army to a plan of operations which the commanding general had not thought of.* Not only did this movement forsake

*See General Miles' testimony.

the key of the military position and throw away naval co-operation, but it entailed great difficulties in supply owing to the expedition's lack of transport and the bad roads—difficulties which would have been avoided had the army remained near the beach.

Under these circumstances the navy could do no more than maintain a close blockade and see that during operations thus prolonged the army should not suffer by having its store ships driven away.

On June 28, General Shafter learned of the advance of Spanish re-enforcements marching from the west, and on June 29 he moved his headquarters on shore and arrived at the front the following day. On June 30, General Shafter notified Admiral Sampson that he would attack the city the next day and that he would make a demonstration with a regiment against Aguadores, three miles east of the Morro, and requested the admiral to support this demonstration in order to divert the defense before the city. Here we see that the movement along the beach upon the harbor forts, which the administration had contemplated as the principal one in front of Santiago, was reduced to the role of a simple demonstration, and that the major and minor operations had exchanged parts in the mind of the commanding general. The navy carried out its share in this demonstration as requested on July 1, and on the following day also, but although the ships present repeatedly assured the co-operating brigade that an advance would find the enemy's position abandoned, yet no movement was made to take possession and a very promising opportunity was completely lost. On July 1 the American troops made a general attack on the outer works of the Spanish position outside of the city, which was unsuccessful, and was continued the next day, so that by the 3d of July the investment was complete on the north and east sides of the city. Nevertheless, in spite of his success the general informed Washington that he thought of falling back from the position he had just won owing to difficulties in supplying his troops from Siboney.

On July 2 a very curious correspondence occurred between Shafter and Sampson. Shafter first telegraphed to Sampson:

"July 2. Terrible fight yesterday, but my line is now strongly entrenched about three-quarters of a mile from town. I urge you to make effort immediately to force the entrance to avoid future losses among my men, which are already very heavy. You can operate with less loss of life than I can. Please telephone answer.

W. R. Shafter, Major-General."

The following reply was telephoned by Admiral Sampson's flag lieutenant:

"Admiral Sampson has this morning bombarded forts at entrance of Santiago and also Punta Gorda battery inside. Do you wish further firing on his part. . . . . Impossible to force entrance until we can clear channel of mines, a work of some time after forts are taken possession of by your troops. Nothing in this direction accomplished yesterday by the advance on Aguadores."

Shafter replied as follows:

"It is impossible for me to say when I can take batteries at entrance to harbor. If they are as difficult to take as those we have been pitted against, it will be some time and a great loss of life. I am at a loss to see why the navy cannot work under a destructive fire as well as the army. My loss yesterday was over 500 men. By all means keep up fire on everything in sight of you until demolished. I expect, however, in time, and sufficient men, to capture the forts along the bay. SHAFTER."

To this Admiral Sampson replied in a letter from which the following extract is made:

"Our trouble from the first has been that the channel to the harbor is well strewn with observation mines, which would certainly result in the sinking of one or more ships if we attempted to enter the harbor; and by the sinking of a ship the object of the attempt to enter the harbor would be defeated by the preventing of further progress on our part. It was my hope that an attack on your part of these shore batteries would leave us at liberty to drag the channel for torpedoes. If it is your earnest desire that we should force our entrance I will at once prepare to undertake it. I think, however, that our position and yours would be made difficult if, as is possible, we fail in our attempt. We have in our outfit at Guantanamo 40 countermining mines which I will bring here with as little delay as possible, and if we can succeed in freeing the entrance of mines by their use, I will enter the harbor. This work, which is unfamiliar to us, will require considerable time. It is not so much the loss of men as it is the loss of ships which has until now deterred me from making a direct attack upon the ships within the port. W. S. SAMPSON."

Thus we see that the commanding general, having allowed the act of a subordinate, contrary to positive orders, to commit the army to a difficult line of operation, ill-suited to the early attainment of the object of the campaign, and having met with more difficulties in his operations than he had previously expected, and foreseeing others to

come, then called upon the navy to save him from the consequences of his act by doing the very thing to prevent which the army had been sent out. General Shafter shows that he regarded the problem before him and the admiral as simply a question as to whether the additional loss of life necessary to complete the campaign should be made to fall upon the army or the navy, and as the army had lost 500 men, he intimated it was now the turn of the navy to suffer an equal loss before the army should be expected again to exert itself. Really the situation was very different. Every commander-in-chief afloat or ashore must consider the political situation of the country as controlling the military action, and in modern times the telegraph to headquarters nearly always confers the means of executing this duty in a way satisfactory to the administration. In the present case it was a matter of notoriety that continental Europe was unfriendly towards the United States, and the administration feared that the loss of a single United States battleship without corresponding loss to the Spanish fleet might serve to crystallize a coalition against the United States which would be more disastrous than any loss of life, either in army or navy, which reasonably could be expected in front of Santiago. Moreover, should the United States lose a ship in the channel while forcing its way in, the channel might be obstructed so that the fleet would be divided into two parts, the one inside too weak to cope with Cervera's force and the other unequal to the Spanish reserve squadron. In this case the transport fleet of the United States army would be very vulnerable and an attack on it would cause the force in front of Santiago to starve, as the reserve of supplies on shore was too small.

A personal interview was arranged between the two commanders-in-chief to reconcile their views, but before it could take place the Spanish fleet came out and was destroyed on July 3. On the same day the Spanish re-enforcing column entered Santiago. On July 4, General Shafter sent word to the city of the loss of the fleet and demanded its surrender. On the same day he renewed his request to the admiral to have ships force the entrance and sent the same request to Washington, asking for 15,000 troops additional in case the navy should not enter. He failed to see that, although the capture of the city and garrison was now the sole object of continuing the campaign, owing to the elimination of the Spanish fleet, yet this did not effect the military situation at Santiago, whose key remained as before on the hills at the harbor mouth. Not only had sickness made its appearance in the army, but the bad season was approaching and passing supplies over a surf-beaten beach was a task of difficulty. Even then, had the detachment at Aguadores been sent against the harbor forts,

supported by the fleet, the clearing of the channel would have enabled the naval guns to complete the investment of the city to the west, would have brought the garrison under the heavy guns of the fleet and would have transferred the base from the uncertainties and difficulties of an open sea beach to the security of a fine harbor, besides avoiding most of the difficulties of forwarding supplies from the base.

The general telegraphed to Washington on July 5: "The only safe and speedy way is through the bay; am now in position to do my part." He had forgotten what he had acknowledged to Admiral Sampson before landing, that the key of the situation was the harbor forts. The President ordered a conference between the admiral and general, to agree upon a joint plan, and on July 6 they decided that three days' truce should be given to the Spaniards to consider surrender, after which the navy should bombard the city from the sea. Should this prove indecisive, the navy would send one thousand marines with some Cubans to assault the Socapa batteries, after which some of the smaller ships of the squadron would try to enter (after countermining). That is to say, it was now agreed that the navy should undertake the land assaults upon the forts, while the army was to retain the Spanish forces within the city.

Fire had ceased on July 4 and negotiations for surrender continued until the afternoon of the 10th, when the artillery of both sides opened and the ships outside added a long-range fire against the city. On July 11, the bombardment was renewed afloat and ashore and the investment of the city was made continuous. In the afternoon fire ceased for the last time. Negotiations for surrender was resumed until the 16th, when the surrender was completed to include all Spanish troops in the eastern extremity of the island.

This wide-reaching surrender was the direct result of the destruction of the Spanish fleet; for the controlling element in the military situation in the opposing lines, and indeed throughout the province, was the question of communications and supplies. The blockade was starving the Spanish army and after the Spanish fleet was destroyed there was no hope of raising the blockade, so Santiago was ready to surrender. In fact, the Spanish government soon preceived its inability to hold the rest of Cuba and grasped the lesson sooner than did our own, although Sampson had early perceived that success at Santiago probably would terminate the war.

The movement on Porto Rico was another blow at Havana, as it deprived Cuba of a necessary intermediate base on the route to Spain, but the destruction of the Spanish fleet so completely interrupted communications that the attack on Porto Rico did not hasten the

conclusion of peace, but merely served to throw that island into United States possession when the peace was signed.

It is interesting to compare this campaign with those against Cartagena and note how unvarying is the character of the Spanish defense through three centuries. In each case the garrison fired and fell back as long as it could, sacrificing every outpost and everything it could take with it, and finally, when in the last ditch, it fought and died bravely, to save personal honor, without ever having made an attack, or shown a wish to make the enemy die with it or before it.

The instructive points about this campaign are:

1. A system of fortification, weak but properly combined with a mine defense believed by the attacking force to be fairly efficient was enough to prevent a naval passage.

2. The necessity that the principal officers in joint operations shall have a very clear comprehension of each other's requirements and capabailities and each thereafter do his part.

In the present case the army was sent to act as an auxiliary to the navy in a naval campaign. The commanding general overlooked this to such an extent that he thought the military operations were the principal ones and called on the navy to sacrifice itself and risk the success of the campaign to further his own immediate object. Had the forts at the harbor mouth been taken on June 24 or 25, as probably they might have been, and the Spanish fleet destroyed a day or two later, it is probable that the Spanish garrison of Santiago would have marched into the interior, and the loss of life before Santiago would have been avoided. In this case the Porto Rican campaign would have been the conclusive one and the war would have ended no later than it actually did.

The resemblance between this campaign and that of Wei-hai-wei is both striking and instructive. In both cases the principal movement of the army of the invading nation was suspended until its sea communications should be assured through the destruction of the hostile fleet. In both cases, likewise, the more active part of this operation, naval in its scope, fell to the share of a large detachment of the army operating eccentrically in a region outside of its own special theater, while the supporting navy had only a secondary part. But in the Japanese campaign the leaders of the army and navy better understood what should be their mutual relations and executed their respective parts with more harmony than was the case of the United States.

Conclusions as to the Attack of Fortified Harbors.

DRAWN FROM THE PRECEDING ACCOUNTS OF TYPICAL CAMPAIGNS.

The campaigns which have been described have been selected as representatives of operations against sea ports. Let us now see if we can perceive a general reason which explains why each place was selected as a point of attack.

It is evident that in every case mentioned the attack on the harbor was made with the object of affecting a chain of water communications, either military or civil. Sometimes the attack was for the object of improving or securing the attacker's lines of water routes, sometimes it was to injure the enemy's lines. Sometimes the port was an ocean port, sometimes one on interior waters; but in each case the attempt to capture a harbor was dictated by some relation it had to lines of water communication.

Even when the objective was a hostile fleet behind the fortifications the reason for the attack still was to secure one's own communications by destroying the enemy's fleet. If we sketch out a probable course of the campaign in a supposititious war, the harbors which will become a part of the necessary lines of communications for that campaign will be clearly apparent, and the degree of preparation and defense proper for each one will depend upon its relative importance to the operations of the war.

To be sure, raiding and wanton destruction of fortifications and the property near them is always possible, but it is becoming more unlikely every year; not so much on account of the prevalence of humanitarian views, nor of the increasing limitations upon belligerent rigths, but because the improvements in the transmission of news and in transportation of every sort makes it unwise to scatter the combatant forces in minor operations. Great defensive works are needed only by those ports which are essential as bases of operations, whether commercial or combatant.

It appears from the examples we have considered of attacks upon fortified harbors that such may take place either by the navy alone or in conjunction with an army. In both cases the operations may inclue a period of slow approach and preparation on the part of the navy analogous to a military siege, or they may consist only of a sudden attack analogous to a military assault.

In this country the success of Farragut's principal actions and their important consequences have much misled unreflecting opinion; and the fact that his assaults were followed by a passage to the other side of the defenses, has led most persons in this country to think

that "forcing the passage," as it is called, is the normal form of naval attack upon a fortified harbor. If we think of the operations before Charleston, we must recognize that when Dupont made his assault he did not think of forcing the passage; and, later Dahlgren, who relieved him, drew up a memoir justifying himself for not running in. From a comparison of the situations in the Gulf with that at Charleston, it seems clear that Farragut ran inside because by doing so he, in co-operation with the army, completely invested the enemy's position and cut all his lines of supply, while maintaining his own communications intact. At Charleston, on the other hand, a passage of the forts by the navy would have been profitless unless the army had made a simultaneous successful attack on Fort Johnson, for the forts would have kept their own communication while the ships would have been cut off.

Thus we see that "forcing a passage" is not justifiable unless the fleet gain a positive advantage with regard to the enemy without sacrifice of its own lines of communication. These conditions will rarely occur, although they are associated with the most brilliant achievements of our navy.

Having thus glanced at some of the principal conditions which determine the propriety of attack, we must now take up the question of methods to be followed. Let us try to decide what features are fixed and what are variable in the plans and operations we have considered.

The methods of attack are necessarily governed by the means of defense. Not only during the period of three hundred years from which we have drawn our examples, but farther back in history, as far back as the siege of Tyre by Alexander, we may see that there have always been two ways of defending a harbor from a naval attack. The defense may resist by striving either to destroy the lives of the attacking forces, or to delay and injure the ships that carry them. It does not seem that there can be a third way. It has always been feasible for a sufficiently powerful attack to deal successfully with either mode of resistance, and therefore in every age a properly devised system of harbor defense has combined the two plans of resistance so that they might reinforce each other and thus oblige the enemy, in shunning Scylla, to fall into Charybdis.

Ever since the invention of cannon they have been used as the armament of ships and of harbor defenses. In both cases they damage a ship's hull and destroy lives on board. Sometimes the ship thus attacked by gun-fire is destroyed by it and always she is more or less damaged. But in the very great majority of cases throughout

history the loss of life owing to the gun fire decides the battle and not the injury that the gun inflicts upon the hull. Usually a new crew only would restore to the ship most of her formidability. Similarly, in using guns against forts more or less damage is inflicted upon the armament within the fort, but in every century it has been a fact that the damage to the material is not usually conclusive, but the effect of the fire upon the morale and lives of the defenders is conclusive. The same is true in the case of field artillery, a defeated battery has usually suffered more in its men than in its guns. Thus in spite of frequent efforts of gunners to select certain materiel for their object of destruction, in all ages and under all conditions the effect of artillery fire usually is chiefly upon personnel. Although gun-fire often inflicts very grave injuries upon materiel, yet we have never been justified by history in *predicting* such injuries to be as influential upon the course of battle as the concomitant loss of life. Thus we may regard the gun (in modern times the high-power gun) as a weapon directed against life, its effects upon materiel are incidental only, although often of great importance.

The power of the guns on shore relative to the protection provided for the crews of the ships has not varied greatly through several centuries. The gun of the day has been thought powerful enough when it could pierce the side of a contemporary ship at a moderate range. Moreover, we find that the relation of the gun afloat to the gun in the harbor defenses has been constant also, both in size and in protection, and further that the gun ashore may be attacked by the gun afloat in two ways, either by a fire of large missiles to disable the gun, or a more rapid fire of small missiles to disable the gun detachment. It also appears that the relative value of a battery on shore to that of one afloat is a function both of the relative degree of protection that each enjoys as well as of the relative volume of fire that each can deliver. Fortifications, ships and cannons have always been so related that ships have needed a very considerable superiority in volume of fire to engage shore batteries without severe loss, and when the ships have suffered little it is more often because the gun detachments are driven away than because the battery is badly injured. With regard to the gun, therefore, we conclude that its use and tactics in the future will be what they have been in the past without being much affected by possible changes in guns and armor. The gun's function is primarily to destroy life.*

*Of course, these remarks do not apply to the use of breaching batteries in siege operations.

Next let us consider the means available to the defenders of resisting the ships themselves. These have always been of two kinds, strictly passive obstructions or obstacles, such as chain barriers, floating booms, sunken wrecks or piling, etc., and active means of inflicting injury upon the ships. In the latter class fire ships have always been employed, but they have been serviceable only under special circumstances. In closed waters they have usually been ineffective so that they have not been generally regarded as important. The submarine mine was the earliest addition of a practical kind to the ways of injuring the ship, and this was followed by the spar torpedo, the automobile torpedo, and latest, by the submarine boat carrying an automobile torpedo. In these various ways of opposing the ship, as distinct from opposing the crew, we see a progressive change from a bare passive resistance to the advance of the underwater body of the ship, towards an increasingly active attack upon the same underwater body, with the subamrine boat and its torpedo as the farthest point of the development. The submarine boat is now a mechanical success, but experience has not developed proper tactics. In attempting to use it we are in the position of a man who for the first time picks up a sword. He can wound an unskilled opponent with it immediately, but to parry with it or to wound a practiced adversary is a matter calling for much training. Nevertheless, whatever may be our present doubts as to the proper tactics of employing submarines, we may be sure that they have come to stay because they conform to the natural line of progress in harbor defense, which we have seen to be that of increasing the activity and efficacy of resistance to the underwater hull of ships.

Another means of resistance directed primarily against the structure is the mortar. Although the fire of high-angle artillery has been used a very long time, yet until quite recently it has not been sufficiently accurate to be applicable against moving targets on the water, and therefore it is only within the past few years that mortar batteries have been extensively employed for coast defense. Seacoast mortars endeavor, if possible, to sink ships by complete penetration, and therein lies their peculiarity which classes them apart. High-power guns act principally against life, and mortars principally against materiel. The mortar differs from other weapons whose main action is against the ship in that it is placed upon the land. It also differs from other seacoast guns in that it is generally so placed that it is not as liable to injury from ship fire as high-power guns.

Let us now turn to methods of attack. As was before remarked, through all the centuries a good defense has so combined a plan for

injuring the persons of the attacking forces with one for injuring the ships themselves that the two plans shall reinforce each other. Therefore any good plan of attack should endeavor to encounter only one of the two methods of resistance. Throughout the centuries there has been only one sure way of accomplishing this; namely, by making the principal attack by the shore and not involving the ships themselves to such an extent as to risk serious injury to them. Just here is the point where modern inventions have affected tactics, but in detail only, not in broad principles. In the past the resistance to the ships was passive and immobile, and therefore in the struggle for the possession of a fortified harbor it was the proper sphere of the fleet to use its heavy artillery freely in aiding the force on shore, since the fleet was always at liberty to retire without danger of a counter attack. At the present time the defense employs to advantage an active mobile counter-attack upon the under water hull, and it is to be expected that in the future, more than in the past, attack upon fortified harbors will take the form of a military siege, while the navy will act as a covering force.

Indeed we may consider that the late operations against Wei-hai-wei and Santiago which we have examined and where the navy took such inactive parts in spite of the exclusively naval objectives, we may believe, I say, that these campaigns clearly foreshadow future practice. This view is confirmed by the thought that a harbor is attacked because it plays a part in a system of communications. But a fleet's duty is to occupy a region and control the sea communication therein, and so it is poor policy to gain a desirable seaport by the sacrifice of ships which are the very means of utilizing the capture. In other words the ships of a fleet should actively assist in the capture of a seaport only when their probable losses will not affect their control of the sea.

Thus a comparison of past operations leads us to the conclusion that the attack on fortified harbors must be, in the future, chiefly a work for an army; and the navy, as a rule, should confine itself to maintaining and protecting the sea communications of the besieging army.

Defense should avail itself of every opportunity for counter attack. In the past the naval support and supply to the siege operations has always been liable to such a counter blow; which, when successful, must cause the attack to collapse. But here again is a point of difference between old means and new, and therefore between old and new tactics. Formerly channel obstructions were almost as much as an obstacle to the exit of the defenders from the harbor as they were to

the entrance of the besiegers; and therefore the counterblow usually came from the outside. With proper control of the sea on the part of the attack this outside counterblow, of course, could not come at all. At present, with channel obstructions which do not restrain friendly forces the counterblow is deliverable from within the harbor where a refuge is at hand after striking. Further, the development of mobility in the means of attack on ship's bottoms has provided a readily available means of delivering a very formidable counterblow.

As was the case in the past, so in the future, the maintenance of contact between the naval and transport fleets on one hand and the besieging army on the other, will always be the most important feature of the entire campaign, but the defense's newly acquired capability of delivering an effective counterblow on the water from within the harbor transforms this maintenance of contact to something far from what it used to be, and makes it the vulnerable and critical feature of the operations.

A skilful admiral in performing his part in capturing a harbor will, therefore, rather withdraw his heavy ships; holding them in reserve for use against a relieving fleet, and will develop the greatest activity in picket duty on the part of his gunboats, torpedo boats and submarines in order to prevent the similar craft of the enemy from interfering with the transport fleet. He will, if possible, send his light craft, particularly the submarines, inside against the hostile vessels there. The besieging army will regard it as its duty to attack and annoy all hostile shipping inside no less than to advance its siege operations, because the ships of the defense will operate against the besiegers' line of supply, when they go outside to deliver the counterblow; and when inside, they will very considerably limit the action of the besiegers' field forces within their own lines. The active naval work of the campaign on both sides will therefore largely take the form of picket work, mining and countermining, and minor attacks by gunboats, torpedo boats and submarines.

All classes of work except the last are fairly well known through experience. But with regard to the tactics of submarines we know nothing. Hostile submarines are in the position of two duelists armed with knives and turned loose in a dark room. Both will want to see, and I am inclined to think that submarines will sacrifice much of their invisibility for the sake of acting quickly and with certainty.

But here we are going into the field of speculation. There can be no doubt, however, that they will play an important role, because our historical examination shows us that they are in the line of progress of three hundred years.

Thus, to conclude our study, we may say that, as formerly, so in the future, the sea-coast guns of all descriptions and the channel obstruction will be the foundations of harbor defense. But, whereas in former times improbability of any serious counterblow authorized and required the battle ships to take a more or less prominent part in the reduction of the defense, the new facility the defense has acquired of delivering a counterblow will oblige the battleships to remain somewhat in retirement while the work of reducing the defenses will fall more exclusively than in the past upon a land force operating in rear of the sea-coast forts.

The active work of the navy in these joint operations will be by every means possible to prevent the delivery of the counterblow upon the water.

W. L. Rodgers,

Lieutenant Commander, U. S. N.

(Concluded.)

*AROUND THE WORLD IN THE U. S. FRIGATE CONSTITUTION IN THE DAYS OF THE OLD OR WOODEN SHIPS.**

A DINNER WITH THE SULTAN OF MUSCAT—CROSSING THE LINE, ETC.

It is an old story now, that of the cruise of the old Frigate Constitution or Old Ironsides around the world before the writer had reached his majority, who served as clerk in that favorite ship under command of Captain John Percival, in the years 1844 to 1847.

On November 13, 1843, I left Boston to join the Constitution, which was being repaired for sea service at the Norfolk Navy Yard. These repairs were completed in May, 1844, and the ship was ready for sea a few days thereafter and the officers and crew were taken on board, in all about 500 souls.

The writer does not propose inflicting upon his readers the daily life of a sailor which is generally a monotonous and non-eventful one, but to touch upon matters of more importance, which led to excitement and pleasure and served to render the cruise less monotonous and tiresome.

While in Norfolk I became acquainted with an old sailor who was of the crew of the Constitution in 1812, Adrian Peterson, a Swede, who, in the engagement between Old Ironsides and the British Frigate Java in the last war with Great Britain, shot Captain Lambert of the Java in the shoulder, who died of his wounds. Peterson was unable to proceed with us on our cruise around the world, having been the victim of rheumatism, and was sent to the Norfolk Hospital. He was then a man of 70 or more years. The ship proceeded to New York and took on board as passengers to Rio de Janeiro, Brazil, Hon. Henry A. Wise, of Virginia, and family, in all thirteen persons. Mr. Wise had been appointed Minister to Brazil by President James

*The cruise of the U. S. frigate Constitution or "Old Ironsides" I have told in the United Service Magazine some months ago, but I have thought that I could interest my readers with an additional chapter of that cruise, and thus close the record of what was sixty odd years ago considered to be a wonderful thing to happen to a youth of twenty years of age, for only two or three U. S. vessels of war at that time had circumnavigated the globe.

K. Polk. The Constitution was ordered to take him and family out. He was afterward Governor of Virginia, as was one of his two sons (John S.), then boys of ten and twelve years of age. The father of the family, Henry A., was Governor when John Brown was executed.

We went to sea with the same armament in every respect, 52 guns in number, with which the Constitution fought and won all her battles in the war with Great Britain in 1812 to 1815.

The story of the Constitution is a remarkable one. She was built in 1797, being one of six frigates ordered by Congress under the presidency of John Adams, who succeeded Washington in office; of these vessels the Constitution built in Boston and the United States built in Philadelphia, proved to be at least the equals in speed of any vessels of the old or any other navy. They were launched about the year 1799 and immediately fitted for sea. The Constitution proceeded to the Mediterranean and joined the Squadron under command of Commander Preble, who was born, I think, in or near Portland, Me., and achieved a great reputation for his success in bringing the piratical Tripolitans to terms. The United States was the first nation and the youngest of all at that date to bring the Barbary States to a sense of their unwarranted demands. Great Britain, France, Spain and the other European maritime nations had paid tribute in coin for the privilege of security in trading in the Mediterranean Sea, and it was not until the youngest of the nations stepped in with its efficient squadron and absolutely refused to pay, that the Barbary States were brought to terms. This much for a portion of the previous history of the old ship.

After leaving New York, the first foreign land we sighted was the Aores (Portugal) or Western Islands, off the coast of Africa.

Next we touched at Madeira, at both places being entertained right royally for a fortnight.

Next we touched at Teneriffe, Canary Islands, where Mr. Wise and party ascended the Peak of Teneriffe, about thirteen thousand feet high, on 4th of July, 1844. This date is as fresh in my memory as though it was an occurrence of yesterday, for I wanted to join the party, but the Captain, a personal friend of our family, objected, saying: "You can see the whole of it from the ship, and ascending it is painful and tedious, and besides if anything happened to you how could I meet your mother?" This name, you may rest assured, overcame my wish.

One day walking about the city of Santa Cruz, the capital of this group of islands, we visited the city prison and made an examination

of its cells. In one of which the Captain stopped and said to me: "Here on this very spot in the time of Nelson's wars, about 1805, I was taken prisoner and confined for several months after having been robbed of my ship. I fortunately escaped with the connivance of a British captain upon whose vessel I found an asylum and returned to the United States by way of London." He and a portion of his crew had been previously pressed on board one of Nelson's vessels from which he escaped after serving in one of the battles against the French and Spanish combined fleet.

We remained at Rio Janeiro a month. The French Corvette, Berceau, left Teneriffe in our company and we arrived together the same morning at Rio. We had, however, sailed 200 miles further, as appeared by an exchange of charts.

Both ships sailed from Rio in company, she with the French Admiral on board, to go to the east coast of Madagascar. She was afterward lost with all on board.

It was not the day of steamers and we saw but two on the whole cruise.

We sailed South, intending to land at the Island of Tristan d'Cunha, named for its discoverer, the celebrated Portuguese navigator. This is one of a cluster of islands, rocky and abrupt and difficult, almost impossible to effect an anchorage at, except in one place, which we were four days trying to make, but failed. The gale was too severe. The Captain in his early career as a sailor navigated among those islands as a seal hunter, and he went far into the Southern Atlantic to see the place where he had passed so much of his youthful career. But we were not to reach it, so we steered for the west coast of Madagascar which great island, almost as large as Australia, has been since conquered and taken possession of by the French.

From Madagascar, after visiting a number of ports in the island, we crossed the Mozambique channel and stopped at the City of Mozambique, governed and armed by the Portuguese. There the Governor dined us, furnished us with fresh provisions and fruits and treated us right royally.

Thence we went northward, skirting the eastern coast of Africa, until we reached Zanzibar, which was a possession of the Sultan of Muscat, where he was then residing. He was a fine-looking Arab, with silver grey hair, one of the most gentlemanly men it has ever been my lot to meet with. He invited the Captain and as many officers as could be spared to dinner, some eight or ten, I think. We had a table by ourselves, he was by himself at another table. Our

pieces de resistance were two entire sheep; there were ducks, chickens, etc., for side dishes, with all European dishes, sauces, etc. Our drink was what was called "Sherbet," no wines or cordials. It was very palatable. I presume the roast sheep was a relic of barbarism, but to my eyes in the hey-day of youth, it seemed to me exactly the thing. As there was an American Consul at Zanzibar, we remained there a week, and then set out to cross the Indian Ocean for China, Manila, etc.

We touched on our way at the Seychille Islands to which country our commerce was extending, as at Mozambique and Zanzibar. Let me say that the Sultan of Muscat and his possessions are now under the protection of Great Britain. We finally reached Cochin, China, which, with Tonquin and their dependencies, have been conquered and taken possession of by the French. As our ship came to anchor in Touron Bay a boat put off from shore and a native came on board bearing the appearance of some religious character. In fact, he was a convert to Christianity. He drew from his habiliments somewhere a letter in French, which purported to be from a Bishop Lefevre, Apostolic Vicar of Cochin China, stating that the latter had been seized at Rue, the capital, and was in fearful danger of his life. He was fed on bread and water, put in irons and was to be tortured gradually to death by burning and other devilish expedients such as tearing out the finger and toe nails, so many a day; and he threw himself on the mercy of any ship which might come into the harbor until the regular French man-of-war, which was soon expected, should arrive. What to do we hardly knew, but a council of officers was held and it was decided to adopt some measure for his immediate relief or at least fight for a delay until help might reach him. In the meantime the civil and military governor of Touron, filling two large barges with their attendants came on board on a visit to the Captain. They were received in the large forward cabin. They stayed a half an hour. I should say meanwhile the clerical-looking Chinaman got into his boat and made tracks for shore. It was decided by the Captain to return this visit of honor of the Governor's in a couple of hours. As many of our crew as could be spared were armed with cutlasses and pistols. I, as Captain's clerk, was armed with two horse pistols, each one a foot in length, in my belt, to go ashore with them as I always accompanied the Captain to take notes upon which I used to base the correspondence with the United States Navy Department. We marched in military order up the avenue, leading to their palace, stationing about 300 at regular distances on each side while the Captain and officers walked up the palace steps, as the Gov-

ernors came down to receive them. Without saying a word the Captain seized one governor under the arm; the first lieutenant, Mr. Amasa Paine, the other, and they headed a procession to the shore, the crew closing in gradually. I think the senses were driven out of these two poor devils of Chinese for there were at least one thousand Chinese soldiers round and about the palace. However, they were put into the Captain's boat, and we carried them off on board of "Old Ironsides" where we kept them four days. By corresponding during the interim we got information from Hue that the priest's life would be spared for the present. We drew out to sea once a day and exercised with two Paxian guns, about the first of the later invented implements of warfare, by Sir William Paxian. We left in due time for China proper and had the pleasure of meeting Bishop Lefevre at Macao, where he had been conveyed by a French man-of-war, which had rescued him from his great peril.

The rockets then used were the invention of Lord Cochran, who was wrongly punished by England for alleged furnishing false information of French successes in the old French and Spanish wars. He was afterward in the employ of Chili and reinstated as a member of the British Parliament and restored to his position and lived and died with an honorable reputation. When at the end of four days we released the two Governors of Touron they were tied with their heads to the tails of donkeys and paraded on the beach of Touron Bay followed by a motley crowd. This was their degradation for allowing themselves to be taken. After much correspondence and a good deal of bluff, we left for China proper, with the understanding that they would be severely punished by the French if they harmed the Bishop. On the second day after our departure, a French Frigate arrived in Touron Bay and Bishop Lefevre was delivered up to it and taken to Macao, China.

Captain John Percival, a sailor from Cape Cod, was known the country over in his day as "Mad Jack" Percival, one of the bravest men in the old navy, who had learned his profession in the mercantile marine, who had served under that grand old sailor, Isaac Hull, who for nautical skill and seamanship stood at the head of his profession. This Cape Cod boy was master of a ship at 18, navigated a sloop from the African coast to Pernambuco, a distance of more than three thousand miles, when the rest of the crew were stricken down with African fever. Again when in command of a bark trading to Marseilles, on going ashore, almost the first man he met was his own father, who had been to England to secure a patent in which he was

interested, and having heard his son was in command of a vessel bound to France, he had wandered over to Marseilles, sick, starving and in rags, to beg a passage back to the United States. The old man never regained his health or strength; he gave way to the enormous strain he had undergone, and was buried by his son off the Banks of Newfoundland.

One of the events which led to the War of 1812 was the impressment of American seamen by the British. All of your readers must have heard of the affair of the Chesapeake and Leopard, which happened in 1807, when the latter took three American sailors from the Chesapeake, commanded by James Barron, who killed Stephen Decatur in a duel for charging him with cowardice on the occasion; it is all a matter of history, to be found in Abbott's "Blue-Jackets of 1812," or other naval work. Among those who left the merchant service shortly after this insult to our flag and joined our little navy, was John Percival, who was appointed sailing master, a grade just below that of lieutenant. Under Captain Lewis Warrington, who had command of the sloop of war Peacock, in 1814, as sailing master, he carried that vessel into action with the British brig Epervier, of equal force. The engagement lasted 45 minutes, during which the Epervier had the weather gauge, notwithstanding which she was cut to pieces, and came out of the action with five feet of water in her hold. She lost eight killed and fifteen wounded. The Peacock received no material injury and not a shot touched her hull, while her apponent had 45 shot holes in her hull, and was in nearly a sinking condition.

Captain Warrington, in his letter to the Secretary of the Navy, said, "Sailing Master Percival handled the ship as if he had been working her into a roadstead," for which a lieutenant's commission was given him. He went on from grade to grade until, as Post Captain, he commanded the Constitution on her voyage around the world, from '44 to '47. He died in 1862, leaving a reputation for professional skill of a high order; although a strict disciplinarian, he was a popular commander. These and other things are all set down in the log book of a youngster of eighteen, and they bring to my mind with a startling vividness other events of more than half a century ago. There are the names of four brave men recorded in my log who were in Norfolk while the Constitution was being fitted for sea, whose acquaintance I made; Commander Charles Morris, who was lieutenant under Captain Isaac Hull when she escaped from the British fleet off Sandy Hook, to whom Hull gave the credit of the escape; Commander Charles Stewart, "Old Ironsides," who, in the

Constitution, captured the Cyane and Levant; Commander Jacob Jones, who was the hero of one of the greatest battles in the whole war—that of the Wasp when she captured the Frolic, the two vessels fighting with their guns under water in a heavy sea, and Captain Lewis Warrington, who so bravely fought and captured the Epervier in the Peacock, as above related. These four veterans of the War of 1812 were the personal friends of "Mad Jack," old sea dogs, every one of them.

At last Old Ironsides was ready for sea, and on the 14th of April, 1844, we weighed anchor, discharged the pilot off Cape Henry, and stood out to sea, bound for New York to take on board the Hon. Henry A. Wise, Minister to Brazil, and his family as passengers to that country as heretofore related. We were blown off into the Gulf Stream, where we encountered severe gales and head winds, and were ten days getting from Norfolk to New York, during which period I enjoyed the delights of a "sea life." I was sick unto death, and I vowed a vow that if I ever could secure a foothold on a six-by-nine piece of land, there would be no more sea for me; no, not for whatever glory there might be in sailing around the world in Old Ironsides. Life had no pleasure for me; the sight of food disgusted me, and I would have sold out cheap.

But there is a silver lining to every cloud, it is said, and there was one to ours. I was not doomed to end my youthful days by seasickness. After three days of as wretched existence as I have ever endured, the ship became easier, my footing surer, and my physical condition improved. My appetite returned, and I could eat my allowance. The weather cleared, and I was a boy again; everything disagreeable had been lost sight of, but I think I shall never entirely forget my first experience of the sea.

In the party of Mr. Wise there were thirteen persons, nine in the immediate family, and four colored slave servants. Mrs. Wise was a daughter of the Hon. John Sargent, of Philadelphia, who was, I think, on the ticket with Daniel Webster when the latter was nominated by the Whigs for President.

Soon again we were at sea, bound for Brazil, "where the nuts come from." From our day of sailing for ten days nothing of special interest occurred; but I find in my log-book reference made to the armament of Old Ironsides as being, with the exception of two Paixhan guns, the same she had when she captured the Guerriere, Java and Cyane and Levant, and that our binnacle was taken from the Java when she was burned by Bainbridge; and that we had on board the marine, Adrian Peterson by name, who, from his position

in the main top, killed the commander of the Java, Captain Lambert, by a shot with a musket ball through the shoulder.

The first foreign land we made was the island of Flores, one of the western group, near the African coast. I can hardly describe my feelings. I felt as if I was in a different sphere, everything around seemed to have changed, I was like one bewildered. I think every one upon first seeing a strange land has an emotion of awe come over him hard to describe. On we went toward Fayal and the peak of Pico, the latter rearing its proud head 8,000 feet above the level of the sea. We anchored at Orta, the harbor of Fayal, and were met and welcomed by the Vice-Consul, Frederick Dabney, Esq. After a visit of a few days of great enjoyment, we set out for Madeira, one of the loveliest islands in the world, the temperature of which is never above 80 degrees or lower than 50 degrees, and as all of you know the salubrity of its climate has rendered it the resort of invalids from every quarter of the globe. As at Fayal we were most gloriously entertained, and it was with feelings of deep regret that we bade adieu to our newly found friends.

On the afternoon of July 1, 1844, we came to anchor in the harbor of Santa Cruz, in the Island of Teneriffe, where the mode of life was more Spanish than Portuguese, as it was in the other islands. The first visit I made on shore was to the prison with "Mad Jack," when he took me into the dungeon in which through some formality of law he had been confined for several months on bread and water, for deserting from an English man-of-war on board of which he had been impressed. A Yankee captain then in port bribed the jailor and Percival escaped to the mole or landing place, secured a boat and rowed out direct to sea five miles, where he was taken on board the Yankee vessel in which he returned to the United States, then only in his eighteenth year. A party was made up from the ship to ascend the Peak of Teneriffe, a feat which few Americans have accomplished. They were gone four days and traversed 90 miles, most of the way on horseback. The summit of the peak is between 1,000 and 13,000 feet above the level of the sea, and the party could approach no nearer to the summit on horseback than six miles; then they walked, and so great was the rarification of the air that most of them were taken sick. The ground beneath the feet was hot. On the morning of the glorious Fourth, the party stood upon the topmost peak of the mountain, and after Mr. Wise had recited the Declaration of Independence, the party retraced their steps. At Oratava we were shown Humboldt's chair and the window at which he used to sit.

Leaving Teneriffe on the 6th of July, we crossed the Equator on

the 24th, when we indulged in the time-honored custom of "crossing the line," about which you may have happened to read in old sea novels or talked over with an old time salt or sailor of the old school. The evening before we were started out of our messes by the cry of "Neptune's coming, Neptune's coming!" Upon reaching the deck we saw a bright light a mile or so distant over the stern. All hands repaired to the gangway, and a curiously dressed personage was seen advancing, who inquired for the captain, proclaiming himself to be a son of Neptune and "a true chip of the old block." This fellow had so completely disguised himself that but few knew his identity. Upon being presented to the captain, he said that his father had commissioned him to deliver a letter, to which he desired an answer, as there are many other ships about to enter His Majesty's dominions, and time was precious, and that next morning we might expect His Majesty, who would examine every mother's son who was making his first visit to his dominions, and that the treatment would be as gentle as possible under the circumstances. His young godship then left, and upon looking over the taffrail we saw another light depart, supposed to be the car of the messenger.

The crew, or those of them who had crossed the Equator, had made all their arrangements, and precisely at 9 o'clock the next morning, Neptune, his wife, children and other relatives to the farthest degree made their appearance upon the quarter deck. Neptune stated his errand, which was a desire to examine every one who had never before visited that part of the world, for he intended to make all subject to his law. After being treated, each all round, to a stiff glass of grog, Amphitrite, the spouse of Neptune and the mother of Triton, having an extra portion on account of her sex, they retired to the forecastle, where a throne had been erected, upon which Neptune and his family were seated to overlook the introduction and examination of the greenhorns of the crew. From the gangway to the forecastle a tarpaulin had been suspended full of water, at the forward end of which a bench had been raised some four or five feet. The water was clean, and, taking advantage of it, having been posted beforehand by one of the sailors who was known as the Duke of Wellington, so named because of his being totally unlike the Duke, to whom I had given an occasional glass of grog from the captain's stock, I was lifted on this bench, my face scraped with a piece of hoop iron, first being lathered with a compound of tar, etc., and before I knew it I was in the air, it seemed to me ten feet, and was ducked and mauled from forecastle to gangway. At last I obtained my

freedom, went down and put on a fresh suit of clothes and returned to see the other greenhorns undergo a similar experience.

Every one but the ladies and children went through this performance; what with the lather of lamp-black and tar, the water began to thicken and discolor, and I congratulated myself at having crossed the line early in the game. Every one was asked by Neptune some question as to his travels, if he belonged to the church, etc., and, before the answer came, into his mouth went the tar-brush of lather. If one showed temper at his treatment, he was served with a double dose. I remember the purser and his clerk, the two persons most disliked by the sailors—there were no paymasters then—made some opposition; but it was no use, the day was Neptune's. Some of the greenhorns went into the rigging for safety, but they were seized and brought before Neptune for judgment, whose satellites showed them no mercy. The purser went so far as to say that he would report to the Department, and have a court-martial on the captain; but, as all this was done for the amusement of Mr. Wise and family, nothing came of it. At 12 o'clock the decks were dried, and nothing remained of the ceremony of "crossing the line" but the remembrance.

So I have brought you to the Equator, where let me leave you for a while. "What do you think, Sir Edward, of this harmless amusement," I addressed a wooden effigy of an old English Admiral, Sir Edward Vernon, which I had endowed for the occasion with speed and action.

"It's nothing," said the Admiral, "but good fun. Why, go back to the days of good Queen Bess, when a warship was a terrible place to live in, no games or fun of any kind. All the attention seemed to be paid to keeping her upright, and the vessel was kept from capsizing by a gravel ballast, which was seldom changed, and it became so soaked with bilgewater, drainings from beer casks, and the general waste of a ship, that it was a source of injury to the vessel and of danger to the crew. The cook-room was a solid structure of bricks and mortar, built in the hold on this ballast, and, beside making the ship hot and spoiling the stores, was a frequent source of fires. This was the way ships were navigated before the days of Queen Anne. The chief danger to the seamen of those days was not in storms or dangers from the sea, but in scurvy and other diseases caused by bad food and worse sanitation. Why, in the expedition of 1559, two-thirds of the men employed perished for want of food; they used

to put beer in old oil and fish casks. What must have been a sailor's life in those days, compared to that of the days of your youth?

"Queen Elizabeth was a pincher. She made Howard and Drake pay out of their own pockets for the wine and arrowroot supplied to the *dying seamen at Plymouth.*"

I have often wondered if, perchance, there was another old shipmate left of the 500 who formed the officers and crew of Old Ironsides in 1844. I am in my eighty-second year and I feel that I may be the last survivor of this cruise around the world in the favorite ship of the navy, "Old Ironsides."

BENJ. F. STEVENS.

OUR CONTEMPORARIES.

An analysis of the contents of the principal military periodicals, systematically classified under a few general heads for the convenience of the reader and student, comprising extracts and comments, in which special attention is given to the most important and valuable articles.

ORGANIZATION, ADMINISTRATION AND MOBILIZATION.

1. The Russian Machine Gun Companies.—*Kriegs. Zeit.*, 2.
2. Field Companies, Royal Engineers.—*Royal Engrs. Jour.*, Jan.
3. Experiences of our Army since the Outbreak of the War with Spain.—*Jour. M. S. I.*, Mar., Apr.
4. Present Needs of the Coast Artillery.—*Same.*
5. The Use and Organization of Machine Gun Detachments.—*Kreigs. Zeit.* 1.
6. Siberian Balloon Companies.—*Same.*
7. The Proposed Reorganization of the Infantry, Militia and Volunteers.—*Jour. R. V. S. I.*, Jan.
8. Army Decentralisation.—*A. and N. Gaz.*, Jan. 14.
9. The Regimental Districts.—*Same.*
10. A great General Staff for the Army.—*Same*, Feb. 18.
11. The Double Company System.—*Same.*
12. Changes in the World's Armies and Navies.—*Jour. R. V. S. I.*, Jan., Feb.; *Mar. Rund.*, Feb.

The *first* article relates to the introduction of machine gun companies into the Russian army.

In the summer of 1901 four such companies were organized experimentally in European Russia, and one in Asiatic Russia, and now, after three years of experience, it has been decided to adopt them permanently for the army. The Manchurian army already had two of such companies, one of which did excellent service at Liaoyang, firing 26,000 rounds in the two days of the battle (August 17 and 18), and losing 30 per cent. in killed and wounded.

The *second* article relates to Engineer companies in the field, which contains some points of general interest:

"In December, 1897, the *Journal of the Royal United Service Institution* contained an article by me on the "Fourth Arm," in which

I mentioned that there appeared to be no satisfactory exposition setting forth the duties and scope of action of Engineers in the modern battlefield in co-operation with Infantry, and stated my conviction that there is a *role* before the Fourth Arm in the forefront of a battle as glorious as that which they enjoy when a siege is being actively pressed or a defence stubbornly conducted. I endeavored to supply deficiencies in the then drill-books so far as the employment of Engineers in action was concerned, and made certain observations from which the next ten paragraphs are extracts.

"To gain information Engineer officers are required with the advanced Cavalry reconnaissance, and from this reconnaissance they should be able to foresee and arrange beforehand for rapidly fortifying important positions to be gained by the Infantry and for the passage of Cavalry and Artillery over partially destroyed bridges, etc. A few specialists will also be required with the advanced Cavalry to assist in destroying or re-forming communications, to tap and repair telegraphs, etc.

"The bridging section must be well to the front; and the telegraph battalion must connect up the various sections of the battlefield with headquarters, and maintain this connection.

"Obviously, therefore, the Engineer-in-Chief must be intimately acquainted with the plans of the General in command; and Commanding Royal Engineers, though they should frequently proceed to the front to ascertain what engineering works are required and to ensure the effective co-operation of the engineer arm, must constantly rejoin the headquarters of their units to keep touch with the views of their own Generals.

"The company training of the Infantry must suffice to enable them to entrench themselves in the firing line, though Sappers may occasionally have to be pushed forward to assist in the defense of specially important points or the fortification of *points d'appui* to prevent a check degenerating into a rout.

"The Engineers with offensive sections use their rifles when required to do so, and the Infantry soldier must also be taught that the entrenching tool is second only to the rifle in importance and that he must use one or the other as the exigencies of the fight may direct.

"An attacking force must ever be ready to assume the defensive and to entrench themselves; the want of time to carry out this precept in maneuvers leads to a lack of reality and to a vicious training. The modern battlefield is a slow and weary wearing away of opposing forces; the advance can only be made step by step; and here comes in the increasingly important *rôle* of the Fourth Arm. * * *

"The application of field works to tactics should be practiced during maneuvers. All units should be accustomed to test the use of field entrenchments in various circumstances, in the firing line, in an extended 'holding' position, etc.; and staffs should be organized to give unity of action and effort. The training of Infantry on 'field-work grounds' gives no idea of the application of works to tactical requirements; in all tactical exercises and maneuvers lines of entrenchment or redoubts might be represented by lines of implements and men at their digging posts. Time for construction of works in the field does not fail so often as the presence of tools and engineers at the right time and place. * * *

"Every arm can best work out its own tactics. To the 'Fourth Arm' this virgin duty now falls; and this can possibly be safely left to the rising generation of the Corps, to the captains and subalterns whose young, vigorous and impressionable minds will find in it a task worthy of their steel. Innovations will always be received with caution and many difficulties have to be overcome; but let us be practical, and solve them practically and not academically. To this end let us hope to see the Field Companies concentrated yearly in camps under selected R. E. Officers, working at tactical field work problems over haphazard country, gaining that eye for country which will alone enable them to adapt works to ground and to intuitively seize on points of advantage during an advance or retreat, etc.; all this without at the same time neglecting to render themselves efficient in all the practical constructional details of field engineering, and to elaborate a thoroughly efficient equipment and organization, etc."

The *third* article, by Captain Rhodes, is the Gold Medal Prize Essay, and constitutes a most interesting and instructive discussion of our present organization. It is a well written, carefully digested, presentation of the subject-matter, founded on reliable and accurate data, and the method of treatment is, to say the least, masterly.

The *fourth* article, by Lieutenant Brooke, in its introductory remarks, which are of a general character, is excellent in its main points, but when the author goes into details he not only detracts from the dignity and importance of his subject, but loses himself in minutiæ that have comparatively small value. We cannot agree with the idea that a soldier should be a recruit during the entire term of his first enlistment, because this is entirely opposed to the modern idea of *individuality* in all training; some men, by their intelligence, adaptability and initiative are recruits in spirit and fact only long enough to learn their routine duties, while others never rise above the condition of recruit, except in certain directions.

Nor is any change required in the present organization of the headquarters staff of the Artillery, which has been most effective in *accomplishing* during the short period of its existence. Its record speaks for itself. Nevertheless, we agree that the responsibilities of the Chief of Artillery are sufficiently great to warrant his having the rank of a Major General.

The essay brings up for consideration a number of other points. In its larger features it is generally broad-minded, but in the minor details it appears to be too narrow, and too evidently reflects the author's limited experience and the particular matters in which he has been specially interested. On the whole, however, it is suggestive, and many features of it deserve careful consideration.

The *fifth* paper, by Lieutenant Colonel Von Layriz, a well-known authority, discusses the various uses of machine guns and the question of the arm of the service to which they should be attached.

The author considers that machine gun detachments should be attached both to the infantry and the cavalry, and believes that these weapons will still have their use on the battlefield, even after the introduction of an automatic rifle for the infantry.

He cites some interesting cases of the use of machine guns in the Russo-Japanese War:

"The Russian General Festoroff reports as follows:

"On April 20, 1904, a machine-gun battery did good service in the battle of Turenchen, in firing on the troops of the Japanese attack on our left flank with such effect that they had to entrench itself. Later on, the same battery covered the position taken up by the Twelfth Infantry. And again, although the battery had received orders to retire, it at once took part in the engagement again when the dangerous condition of the Ninth Battery was made evident. In this battle the machine-gun battery brought heavy losses on the Japanese, but also suffered severely itself, losing one officer and 38 men killed, and a large proportion of the horses. The battery fired in all 38,000 shots.

"General Festoroff also reports that the machine guns of the Japanese often became troublesome to the Russians. On May 17th, for example, two Sotnias of Cossacks, fighting on foot, were compelled to retire by the Japanese machine guns."

The entire article contains much useful information and many indications for the tactical employment of this special arm.

The *sixth* article describes the Russian balloon company, organized after the opening of the war. It is not known whether it took part in the war. Such improvised organizations, established after war begins,

are rarely of much use for the war in progress. The company comprises 3 officers, 193 men and 138 horses. Among the men are 22 non-commissioned officers, 95 privates, 17 machinists and other experts, and 59 soldiers of the *train*. The wagon train comprises 56 wagons in all: 2 winch-wagons (one for horse power, one for steam power), 1 water wagon, 1 balloon wagon, 1 wagon for instruments, tools, etc., 1 gas wagon, 3 wagons for canvas and ropes, 14 wagons for acid, 24 wagons for iron filings (five days' supply), 3 coal wagons and 5 wagons of gas generators. A commissary train of 9 wagons is attached. On this train there are 4 anchored balloons available, besides the following intrenching tools: 50 spades, 50 picks, 40 axes, 40 crowbars and 3 saws.

The *seventh* article relates to the recent reorganization of the British Army, from which we quote an interesting statement:

"To return to the proposals of the Secretary of State for War:—

"There is, however, in the preceding paragraph to the one I have quoted from the Secretary of State's summary, a statement which, I think, must be traversed entirely. He says:—'If we have not command of the sea it will not be necessary for an enemy to land, it can starve us into submission.'

"Is this so? Can corn be kept out of this country unless America and the countries on the west of Europe were all allied against us and successful at sea? But such an alliance against us may be said to be politically impossible.

"I do not underrate the effect of a naval war or of even a single naval reverse upon the cost of bread, and think that in case of a naval war Government should have power to regulate the cost of bread to prevent its undue enhancement by panic and speculation; but this does not alter my contention that you cannot starve this country, except by such an alliance as I have mentioned.

"If a large body of troops may, under certain circumstances, make such an attack as the Duke of Wellington indicated, a Regular force ought never to be dispensed with, but that does not affect the great value of the Militia and Volunteers.

"The Militia is the old constitutional force of this country, in which every man is liable to serve; the Militia has on many occasions been of great value to the country, and has largely helped to feed the Army with recruits. It has suffered too much by the process, and let us hope that the measures proposed for its amelioration will restore it to its proper position.

"The Militia can, I submit, never be done away with in this country as long as we have a Volunteer Army, for many a man makes experi-

ence of the Militia before he determines to join the Army. We cannot have general service for the Army until such service is felt to be necessary.

"Dry the Channel to-morrow, and it would at once be felt to be necessary; but till that happens there seems no probability of general service in the Army being adopted in time of peace. In a very exhausting war, which we may hope will not happen, this country must study the example of the United States. The Northern States, after incurring enormous expenses in pay, bounty, etc., at the end of the war could not escape compulsion; knowing this, it is to be hoped that, if this country is placed in such a strait, compulsory service will be resorted to before an immense debt is incurred in a vain attempt to avoid compulsion."

The *eighth, ninth* and *tenth* articles bear on the same subject. The last of these is of most interest to us, and we quote a few paragraphs from it:

"The truth is that the Army has been subjected for years to a process of tinkering in accordance with the exigencies of party government, and, under a system of party arganization, in which vote-catching is one end and aim of politicians, we have not much hope of amendment.

"Yet it must be the object of all who have the interests of the Empire at heart to lift the Army out of the pernicious atmosphere in which its administration is conducted. How grievous have been the influences of mere expediency upon it in the recent past all may see in an admirable article by Colonel St. John Fancourt, which we publish in another page. Let the truths he enunciates be taken to heart. They tell a sad story of the failure of politicians either to diagnose the disease, or to prescribe the remedy for the maladies they have themselves created. The Navy has not suffered in the same way. It stands more apart; all men now recognize its functions; they are agreed, therefore, upon its expansion to the height of sufficiency; and, what is more important from the political point of view, that expansion adds a certain number of pennies to the income tax of the 'classes,' but imposes no burden upon the great voting 'masses.' They, as Colonel Fancourt says in another connection, are content to sing 'Rule Britannia!' Happily, there is one bright feature in the prospect. The Committee of Imperial Defence is there to define the functions of the Army, as well as of the Navy, and thus to indicate the lines on which it should be constituted. What we require for its constitution is the due exercise of professional knowledge, and an end to the 'playing to the gallery' which has marked political direction of the Army.

"It is deplorable, as we have often pointed out, that while these discussions are going on, the Army is suffering in its dearest interests, and that its officers are subjected to most discouraging uncertainty. 'I am *nim muk wallah,*' each will say with Wellington: 'I have eaten of the King's salt, and I conceive it to be my duty to serve with zeal and cheerfulness, when, and wherever the King and his Government may think fit to employ me.' But what is the position of the officer? A soldier under the War Office system, be he of the highest or lowest rank, has no rights. He cannot demand a military or civil trial if his character is of the past. Let, therefore, the Army Council set about the creation of a Great General Staff, and of staffs in the commands upon lines which their knowledge and experience will indicate. With the Esher Committee we attach extreme importance to the constitution of a general staff with defined functions in peace and war, educated for its special duties, drawing to itself the pick of the brains of the Army, and working continuously to improve the training of the troops and the standard of their preparation for war."

MILITARY EDUCATION AND TRAINING.

1. Training Ranges and Long-Range Firing.—*Jour. Arty.*, Jan.-Feb.

2. Our New Infantry Drill Regulations.—*Jour. M. S. I.*, March-April.

3. The Target Practice of the U. S. Navy.—*Mar. Rund.*, Feb.

The *first* of these articles, by Lieutenant-Commander Sims, U. S. Navy, who has been for some years a recognized authority on the subject, and an able and energetic officer, especially interested in perfecting target practice methods, is a timely essay of prime importance not only to the Navy but also to the Coast Artillery.

The entire article deserves the most careful study and consideration. The author is not a mere theorizer, but has had plenty of actual practice and has been most successful as a trainer in gunnery. His article is based on actual experience and good sound sense. It is a valuable conrtibution on a subject of the greatest interest to artillery afloat or ashore.

The *second* article, by Lieutenant-Colonel C. J. Crane, 8th Infantry, now commanding the Porto Rican Regiment, is another valuable article by an able officer, who has devoted much time and study to infantry drill regulations, and has had considerable experience in the field.

The *third* article is a commentary on the preceding by a German naval authority, and is well worth study in connection therewith.

MILITARY HISTORY, STRATEGY AND TACTICS.

1. The Russo-Japanese War.—*Jour. R. U. S. I.*, Jan.-Feb.; *A. and N. Gaz.*, Jan. 14, Feb. 18; *Mar. Rund.*, Feb.-March; *Jour. Arty.*, Jan.-Feb.; *Jour. M. S. I.*, March-April; *A. and N. Jour.*, March 11.

2. Protection of Commerce in War.—*Jour. R. U. S. I.*, Jan.

3. Instructions for the Russian Army respecting the Laws and Customs of War on Land.—*Same*, Feb.

4. The Somaliland Operations, 1903-4.—*Same.*

5. *Der Weltkrieg.—Royal Engr. Jour.*, Jan.

6. England and Germany.—*A. and N. Gaz.*, Jan. 14.

7. Artillery in War.—*Ind. Vol. Rec.*, Dec. 31.

8. The Future of Cavalry.—*A. and N. Gaz.*, Feb. 18.

9. Sir John French on Strategy.—*Same.*

10. Organization and use of Machine Gun Batteries.—*Kriegs. Zeit*, 1.

11. Surprise of the Tabor Bridge, Vienna.—*Jour. M. S. I.*, March-April.

12. Types and Traditions of the Old Army.—*Same.*

13. The War and Field Artillery.—*Jour. Arty.*, Jan.-Feb.

14. The Foundation of Blockade Systems.—*Mar. Rund.*, Feb.

The *first* of these articles are utilized in another article in this magazine.

The *second* is of considerable importance and general interest, especially in connection with the coming Panama Canal:

"In former papers read by myself in this Institution I have always thought, and my opinion received a considerable amount of backing from competent authority, that the Suez Canal would be blocked in time of warfare. I find myself at the present time somewhat weakening upon this opinion; perhaps the wish that it may be possible to maintain our communications uninterrupted may be father to the thought. But be that as it may, we cannot shirk either the duty or the necessity of contemplating the possibility of inconvenience in this direction, especially when we consider the enormous results that will hang upon it. The more one investigates this matter the more one is confronted with the absolute hopelessness, at all events in the first days of war, of possibly diverting the Suez Canal traffic round the Cape of Good Hope. In days when ships' bunker coal is cut down to its lowest limit, the difficulties in the way of any great divergence would appear to be almost insurmountable.

"*Suez Canal Traffic*, 1902.—2,165 British ships, tonnage 6,772,911 tons; total for all nations, 3,708 ships, 11,248,413 tons.

"H. R. H. Prince Louis of Battenberg stated in 1893 that we could not possibly keep the Suez Canal open in war time. It is obvious that the divergence of a portion only of this traffic would be attended with considerable difficulty, and apart from the question of blocking the canal, there is the risk of torpedo attack on this route.

"In all the operations of modern warfare the supply of fuel is the principal governing factor, consequently in any question which affects the abandonment of the Suez Canal as a trade route, and brings forward the Cape route as an alternative, the first question to be considered is the possibility or otherwise of sufficient coal supply.

"From the latest information that I have been able to procure, I find that the stock of coal in Cape Town on 31st March was 21,600 tons, of which quantity 10,000 tons only was steam coal. There were in port on that date 11 sailing and 12 steamers—23 in all. During the course of the South African war, and with the plentiful supply of labor, 6 transports were sometimes coaling at once in Table Bay. It is doubtful whether in the near future this number could be greatly increased, and the power of the port for supply would probably be 2,000 tons daily, as a liberal estimate; this, however, would depend upon whether merchants had had any considerable notice as to possible demands for steam coal, quality and quantity of the local Cape coal being inferior. In dealing with the Cape, however, it would not be fair if, in considering possible resources, we were to deal with Table Bay only.

The advantages of Saldanha Bay would hardly appear to be quite appreciated at the present time. That harbor affords very great facilities for coaling in smooth water, and with extreme ease, from two colliers at a time. If one might venture the suggestion, it would be that the Admiralty might do worse than to verify this statement, and consider the possibilities of this port in conjunction with Simon's Bay.

"Durban, however, is a port that, besides possessing a fairly efficient supply of steam coal, offers exceptional facilities for transshipping and doing the ordinary work of steamers with the minimum of inconvenience.

"There is now at that port a large output of Colonial coal at a very cheap rate per ton, and every facility is given by the Natal Government for the bunkering of steamers. The supply, moreover, is an always dependable quantity, and as regards quality it is about equal to ordinary North Country coal. The resources of that port at the present time probably would run to 70,000 tons per month, and in an increasing quantity; and I find that for the end of February, 1904, the average depth of high water on the bar was 31 feet.

"The coaling supplies procurable at East London and Port Elizabeth are of a very meagre nature, and not to be considered as a source of supply.

"It would be possible perhaps to supply coal at the rate of 1,000 tons daily at Sierra Leone; that, however, would be but a mere drop.

"Such being the case, it is quite possible—I do not say it is probable, but *it is possible*—that if at the end of this war Russia should find herself in a very dangerous position, as she may very well do, and should appeal to France *ad misericordiam* for aid, it is quite possible that such a wave of sentiment may sweep over France as will force its Government, on pain of overthrow, to go to the aid of its old ally. If France should act in that manner, it is also quite possible that Germany may join in also and strike a blow at Britain. We shall then have to face that combination which has so very often been talked about; of three Naval Powers against us. I do not say, of course, that this is what *will* happen, but I say it is what *may* happen, and, what is more, it may happen in the course of the next year or 18 months. I therefore contend that, as reasonable, practical men, we ought to assume that it *will* happen, and prepare for it. In view of that possibility, what is to happen to our Mediterranean trade? I will not enlarge upon the magnitude of that trade, or of its vital importance to this country, because it is well understood and known by everybody. But the first thing that strikes one in considering this matter is that there are two totally divergent views on it. There is the one school, who maintain that our Mediterranean trade is of such tremendous importance that it must be defended at all hazards, even if we are engaged in war with France. There is another school who maintain that if we are engaged in a naval war with France, it is not, and will not, and cannot, be possible to properly protect our Mediterranean trade. I wish to quote the authority of the Naval Prize Essay for 1904 to back up that argument, because that view is very strongly taken in that essay. It says:—'The Mediterranean is admirably suited to torpedo-boat warfare, and it is France's evident intention to render the Toulon-Corsica-Agiers-Bizerta area as dangerous as possible to hostile fleets; a sure index of this is the large number of torpedo-boats and submarines building at present.' Then from that he goes on to deduce that:—'The Anti-Toulon Fleet would lie W. of Gibraltar, with a Cruiser Squadron of 2 armoured cruisers, 1 first-class protected, 2 second-class, and 2 third-class cruisers, with 6 destroyers watching Toulon'; and he further goes on to say that:—'The Toulon Fleet may remain at its base for some time while the cruisers harass trade and a torpedo-boat warfare is directed against the British Battle

Fleets.' He further goes on:— 'As regards trade, *any idea of keeping the Mediterranean route open at the commencement of a Franco-Russian war should be abandoned, and arrangements made for deflecting all trade round the Cape.'* If that view is to be taken as correct, or even as an approximately correct expression of naval opinion, then I say the situation is most serious and grave; for if it is possible that we may find ourselves at war with France, Russia, and Germany in the course of the next year or 18 months, then it appears probable that we shall find ourselves compelled to deflect our trade round the Cape, whether we like it or not. The lecturer has said that he considers it, as far as he can see, almost hopeless to attempt to do so; but we should have no option, apparently. Looking at the map which he has exhibited, how on earth is our Mediterranean trade to pass through? How on earth are our slow 8 or 10 knot tramps, in which the greater part of our trade is carried, to pass slowly along in front of Bizerta, Tunis, Oran, Algiers, etc., etc.?"

The *fifth* article will be explained by the following extract:

"DER WELTKRIEG.*

"By AUGUST NIEMANN.—(Vobach & Co., Berlin, Leipzig).

"Though the author's idea of strategy and tactics are somewhat crude, this book is interesting as an illustration of views which appear to be entertained in some quarters on the Continent.

"In his Preface the author recalls a conversation with a British Officer whom he met in India, in which the latter said that when he first served there as a subaltern the Russians were 1,500 miles from the frontier, when he returned as a captain 15 years later they were 500 miles away, and now they are actually at the passes leading to India.

"He looks into the future and sees a war waged by the three allied powers—Germany, France and Russia—against their common enemy, England, with a new partition of the world as its result.

"The scene opens with a conference of Russian statesmen at the Winter palace in St. Petersburg, during which M. de Witte states that 'It is the never-ending enmity of England which is responsible for the attack by Japan' and that it is necessary to put a stop to England's opposition to Russia's aims and interests. General Kuropatkin, called upon to unfold a plan of campaign says 'There are three important passes leading from Afghanstan into India—the Khaibar, the Bolan, and the Kurram,—and it suffices to say that we would find a way there. Habibullah Khan would join with 60,000 men as soon as we entered

*A translation, by J. H. Freese, under the title "The Coming Conquest of England" has recently been published by Routledge.—ED.

his country; he would indeed, be just as likely to join the British if they were first in the field, but nothing should prevent the Russians from being there soonest. I guarantee that within four weeks of the declaration of war a sufficiently strong army could be concentrated in the neighborhood of Herat; this first army could, moreover, be followed by an unceasing stream of regiments and batteries; the reserves of the Russian Army are inexhaustible, and if necessary four million men and more than half a million horses could be brought into the field. I doubt, however, if the English would meet us in Afghanistan, and I consider they would be foolish to do so; for if they were defeated the Afghans would destroy them without mercy, whereas to us there would always be open a way of retreat through Turkestan. If the English army were defeated, India would be lost to Great Britain; her power would be attacked on all sides by the Native Princes, who have been so cruelly robbed of their independence, while we would be looked upon as deliverers. The Anglo-Indian army is much stronger on paper than in reality. It numbers nominally 200,000 men; but only one-third is British, and it consists of four Army Corps scattered over the whole of India. The Field Army would have to be newly organized, and at most it could not number more than 60,000 men; for owing to the disloyalty of the people, the country could not be denuded of troops. My opinion is that the war should be carried into India, and that victory would rest with the Russians."

The *sixth* article is a commentary on the anti-English foreign policy of Germany, and discusses the probable action of Germany in the event of war, as well as other related matters:

"Many Germans have pilot's certificates for our harbors. In time of war these men's places would be on board the warships, as they were when the Gefion and Deutschland, conveying Prince Henry to China, steamed into Portsmouth in a fog. This occasioned a good deal of comment at the time on the good seamanship of the Germans. The talk *ought* to have been as to whether foreigners should be granted pilot's certificates for our harbors which could be made use of in time of war, but this point was never raised. It would be interesting to know how many British sailors have pilot's certificates for German harbors. The German officers come to England on leave, stay in our country coast towns, collect intelligence about communications, harbors, supplies, etc., yet no one ever makes the least attempt to stop them. Would any one in our Service be allowed to collect the same in the Fatherland? Early in 1903 some young German officers, disguised as laborers, were found working on the new harbor at Gibraltar. Now, supposing some of ours had been discovered, for example,

working on the forts which are being built round Metz they would probably have been imprisoned as spies. Were our Teuton friends treated in this way? Not a bit."

The *seventh* article is of more than usual interest as to field artillery tactics:

"The special correspondent of the *Times* with General Kuroki's army has contributed to a recent impression of the leading journal a review of the artillery lessons of the fighting in Manchuria, which is extremely informing and useful, coming as it does from a trained observer of the strenuous tests to which both organization and *materiél* have been subjected during the campaign of 1904. The Japanese gunners have achieved many notable successes, and, in illustration of the splendid services rendered by the Artillery to the arms of Japan, the following instances are quoted. 'At the Ya-lu the fire of the howitzers pulverized the Russian artillery and rendered the task of the infantry perfectly simple. At Mo-tien-ling six Japanese guns were mainly responsible for the repulse of the attack on the pass on 17th July, an attack that, had it been supported by artillery, might have resulted differently. At Towan the 13 Japanese batteries overwhelmed the four opposed to them and cleared the way of the infantry. On the right bank of the Tang-ho the Russians made a most determined stand against the column wedging its way into their line of defence. That defence might have been successful were it not that two mountain guns intervened when the issue was in the balance, and turned the Russians out of the trenches they were defending so obstinately.'

"These are instances of course from the operations more particularly of General Kuroki's army, but many other examples of the decisive effect of the artillery fire could be brought forward from the operations of the other armies, and conspicuously in the case of the storming of the Russian position at Nanshan in the opening stage of the investment of Port Arthur. The practically unvarying success of Japan might induce the conclusion that, gun for gun, the Japanese ordnance must be superior to the Russian, but it appears that the facts are just the reverse. The Russian field-gun is a heavier piece than the Japanese, throwing a projectile 25 per cent. heavier 1,500 yards further, and not only so, but though not a quick-firer according to modern ideas, it is capable of being fired much more quickly than the Japanese weapon, and the correspondent refers to instances, which recall the experiences of France in the campaign of 1870, where he has seen Japanese gunners sheltering from a storm of shrapnel poured upon them by guns which their own artillery was incapable of reaching.

"The successes of Japan have been achieved by superior tactical

concentration and handling, and, above all, by superior gunnery. Had the superior ordnance been in the hands of Japan the result must have been a more overwhelming disaster than has yet overtaken the Russian arms. The Japanese proved themselves better range-finders, better shots, more cunning in concealment, more astute in choice of position, and more indefatigable in overcoming engineering difficulties. In the matter of concealment the nature of the country through which the operations have been conducted has been such as to give special opportunities for masking the position of guns, and the nature of the mounting of the Japanese field gun, in which the gun is carried very low, has been probably also a factor. It will come, however, to many as a surprise to learn, that in the matter of actual guns, Japan was quite outclassed. However that may be, the great importance of the artillery preparation and support, both in attack and defence, has been once more overwhelmingly demonstrated and special interest attaches therefore to the reports from Tokio that great efforts are being made to place improved guns in the field for the spring campaign. What should be the features of the modern field gun? The correspondent of the *Times* entertains no doubt. 'The present war teems with lessons, lessons that have been repeated time after time until they have stereotyped themselves upon the mind. The burden of these lessons is that the biggest possible guns are the best, that the guns that throw the biggest projectile to the furthest distance at the quickest rate are the only guns for an army that is destined to conquer on the field of battle. There is no limit to the ideal size of gun, except that imposed by the difficulties of transportation. The most effective gun, it has been amply demonstrated in Manchuria, is the biggest possible gun compatible with the field artillery degree of mobility.' That mobility, to put it shortly, can be the same mobility as the infantry which it is designed to accompany."

The *eighth* article is a valuable discussion on the tactics of cavalry which appears to be very opportune, and to be based on sound sense. At all events it involves the generally accepted views of the best authorities, and may find application in our own country:

"We have often drawn attention to the steady, useful, and excellent work now being done by the cavalry, and a correspondent who has lately had special opportunities of observing it in Ireland assures us again that the utmost keenness prevails, and that the work is contributing greatly to the efficiency of the mounted arm. There can be no doubt that, as a result of the war

in South Africa, there was a tendency in certain quarters to question the high value of cavalry, notwithstanding the fact that in the war it had rendered most conspicuous service. The underestimation of the force dated from before the war, and led to the memorable statement that 'unmounted men' were 'preferred.' Our own opinion is that the day of cavalry is, in a sense, only beginning, and that the future is full of good promise. It has come to be considered, by those who do not fully understand the functions of the mounted arm, that its real business is to charge; but, as a matter of fact, the charge is the exception, and only one of the many duties that fall to the force. Comparatively few were the officers or troopers who had any opportunity of learning scouting and reconnoitering, those other important duties of cavalry, before the war in South Africa, and it is a fact that at the opening of every campaign the need of mounted men is demonstrated. It was so in South Africa, and it is even so now in Manchuria, where the Cossack has once more proved a failure, and where the Japanese are lamentably weak in the mounted branches of their army. The Russians have endeavored to organize companies of mounted infantry as scouts, forming part of each infantry regiment; but, though they have rendered some service, they are now discredited, because, when they have encountered even the defective Japanese cavalry, they have always had to seek safety in flight. We have no desire to discredit the work of the mounted infantry, but we are quite sure that it can never prove a substitute for cavalry. * * * General von Pelet-Narbonne has, therefore, set out to discover why cavalry has succeeded or failed in the successive wars from that time to this, and he has no doubt as to the future of the arm. Personality, individuality, he prizes above everything else in the cavalryman, linking with it the highest training that can be given. Cavalry cannot be improvised. They must be given easy, inconspicuous uniform, and trained to fight on foot, with a good rifle and a bayonet to be used as a side arm. But this can only be done in right measure when it is remembered that their true function is to fight on horseback, and to charge with the *arme blanche*. Speed and fighting organization are also great weapons, and the German general is strongly in favor of cavalry divisions of twenty-four squadrons organized and trained in peace, each division supplied with three quick-firing horse batteries, a machine-gun section, and mounted pioneers, provided with adequate transport and equipped with constructive and destructive means. He would even add a battalion of mounted infan-

try, and some cyclists. The idea is, of course, to secure a thoroughly efficient, independent, swift-moving and hard-hitting force.

"It is well that all cavalry questions should be freely discussed, and we were pleased to notice that at the request of the military authorities, and under the presidency of General Sir William Knox, the Inniskilling Dragoons and officers of other regiments listened to a valuable lecture upon cavalry work by Dr. Miller Maguire, in the Marlborough Barracks, Dublin. The lecturer showed that every nation which ignored cavalry or mounted troops at the beginning of a long war was very glad to avail itself of their service before the war was over. The example of the famous cavalry of Sheridan in the American Civil War was cited, as were the achievements of many other great cavalrymen from the charges of Seydlitz and Murat to the cavalry operations of 1870. The cavalry is the arm *par excellence* in the pursuit of a defeated enemy, but it has the great duties also of scouting and reconnoitering, and screening infantry.

" 'There never is worse economy than saving money at the expense of military efficiency, and horse management should be a branch of national education.' As to the value of cavalry, Dr. Maguire, like ourselves, entertains no doubt whatever, and he enforced his argument by describing what Stonewall Jackson and Ashby did in America, what our cavalry could do in India, and what Skobeleff did and proposed to do in Central Asia."

ARTILLERY AND FORTIFICATION.

1. Motor Artillery.—*Ind. Vol. Rec.*, Dec. 31.
2. Seacoast Gun-Carriage Design.—*Jour. Arty.*, Jan.-Feb.
3. Aiming by Telescopic Sight Compared with Aiming by Open Sight.—*Same.*
4. High Angle Fire.—*Same.*
5. Training Ranges and Long-Range Firing.—*Same.*
6. Gun Arm for Mortar Battery Plotting Board.—*Same.*
7. Field Artillery for the British Army.—*Same.*
8. Schneider-Canet du Bocage Howitzers.—*Same.*
9. Aiming Devices for Field Guns.—*Kriegs. Zeit.*, 1.
10. Artillery Material in Russia.—*Same.*
11. Japanese Powder.—*Same.*
12. The Fortifications of China.—*Same.*
13. Notes on Engineering Work in Northern China.—*Royal Engr. Jour.*, Jan.

Most of these articles are necessarily of a technical nature.

The *first*, however, has some general interest:

"We have seen heavy guns drawn in the field in South Africa by steam traction engines, but it has been left to Portugal, of all countries, to be first in the field with artillery drawn by petrol explosion engines. A German service paper states that, on the proposal of Colonel du Bocage, of the Portuguese Engineer Corps, the Government ordered from Schneider & Co., of Creuzot, a battery of four 5.9 in. howitzers, which are drawn by a traction motor, system Brillie, and form part of the defence of Lisbon. The motor itself weighs nearly 138 cwt.; it can carry a load of 98½ cwt., consisting of the battery's crew, ammunition, water, and fuel, and at the same time drag the four 5.9 in. guns, which together weigh 275½ cwt., up a gradient of one in 12.5. For higher gradients up to one in eight the motor ascends alone and then drags the guns after it by means of a cable worked round a revolving drum. * * * Four ammunition wagons are dragged in addition to the guns, and the length of the whole battery train is only 65 yards. The ammunition carried and dragged by the motor gives 72 rounds per gun. The construction of the 5.9 in. howitzer is similar to that of the French 2.95 in. (75 mm.) field gun of 1897. The barrel recoils. The weight of the shell is 88 lbs., the muzzle velocity is 1.148 ft., and the range is 8,750 yards."

The *second* is a classical article by Captain Edward P. O'Hern, Ordnance Department, which had been read before the International Engineering Congress, St. Louis, Mo., 1904.

The *third* is by Captain Piorkowski, of the German Army, Krupp's representative in this country.

The *fourth* is a most valuable contribution for the coast artillery: it is written by Captain Harris, the present instructor in Ballistics at the Artillery School, Ft. Monroe, Va.

WARSHIPS.

1. The Russian Battleship Tsarevitch.—*Jour. R. U. S. I.*, Feb.
2. Coaling of Ships of War at Sea and in Harbor.—*Same.*
3. Injuries to the Cesarevitch.—*Jour. Arty.*, Jan.-Feb.
4. Armament of Cruisers.—*Same.*
5. H. M. S. Dominion.—*Same.*
6. Warship Construction in Russia.—*Kreigstech. Zeit.*, 1.
7. Conning Towers on Battleships.—*Mar. Rund.*, Feb.
8. Changes in the World's Navies.—*Same; Jour. R. U. S. I.*, Jan., Feb.

TRANSPORTATION.

1. The Choice of a Small Motor Car.—*Royal Engr. Jour.*, Jan.

2. Road Locomotive for electrically-moved Targets for Field Artillery.—*Kreigs. Zeit.*, 1.

MEANS OF COMMUNICATION.

1. The Military Applications of the Photometer.—*Kreigs. Zeit.*, 1.

2. Wireless Telegraphy in Russia.—*Same.*

3. Lines of Information.—*Jour. M. S. I.*, March-April.

The *first* of these describes the latest apparatus of the Schuckert works for wireless *telephony*, utilizing the principle of the photometer.

The sending station has a telephone transmitter (or microphone) in circuit with the primary wire of a transformer (induction coil) and a small battery; the secondary of the transformer being in the circuit of the arc light current of a search-light.

The receiving station has a selenium cell (a series of plates of selennum of special form) in the focus of a parabolic receiving mirror. The selenium cell is in circuit with the telephone receiver and a strong battery.

In speaking into the transmitter varying currents are produced, which would be *alternating*, but which are made *direct* by the transformer. These affect the main arc-light current so as to increase or decrease it, thus increasing or decreasing the intensity of the light. This effect is carried over to the receiving parabolic mirror and acts there on the selenium, increasing or decreasing the resistance of the latter, and thus producing variations in the battery current through it and the telephone receiver, and accurately reproducing the original words spoken into the telephone transmitter.

It has been used effectively for ten miles, and has the advantage over wireless *telegraphy* in that it is *secret*. Only a receiver accurately in the focus of the sending search-light can take the message. The variations in light intensity of the latter are not noticeable by the eye.

The *third* is an excellent article by General Greely, Chief Signal Officer, U. S. Army.

MILITARY GEOGRAPHY.

1. Naval Coaling Ports and their Garrisons.—*Jour. R. U. S. I.*, Feb.

2. The Value of Korea to Japan.—*Mar. Rund.*, Feb.

3. German Harbors.—*Same.*

4. German Protectorates in Africa.—*Same.*

SMALL ARMS AND EQUIPMENTS.

1. The New British Short Rifle.—*A. and N. Gaz.*, Feb. 11, 18; *Ind. Vol. Rec.*, Jan. 31.

2. The Lance as a Cavalry Weapon.—*Jour R. U. S. I.*, Feb.; *Ind. Vol. Rec.*, Dec. 31.

3. The Recoil of Small Arms.—*Royal Engr. Jour.*, Jan.

4. The New U. S. Army Rifle.—*A. and N. Jour.*, Mar. 11.

5. The Caliber of the Revolver.—*Jour M. S. I.*, March-April.

6. The Present Tendencies in the Development of the Infantry Rifle.—*Kriegs. Zeit.*, 1.

7. Equipment for Visual Signaling in Dull Weather.—*Royal Engr. Jour.*, Jan.

The *first* of these contain some interesting notes on the new British infantry arm:

"Even had its accurracy in the first few rounds been materially behind that of the old one when fired from a rest or under Bisley conditions, we should still have welcomed its adoption on the score of increased handiness, for, after all, what does extreme accuracy in the weapon count for under battlefield conditions? Within a few weeks —even within days—the same troops with the same weapons and against the same objects will vary in their shooting from 1 hit in 200 to 1 in 2,000, and even worse, and generally speaking it will be found that the worst-armed troops have often made the best practice. Thus the French in 1859 had old smooth-bore muskets against the Austrian rifles. The Prussian needle gun was ballastically the most inferior rifle ever placed in the hands of any army as a whole, and was opposed to one of the best of the day, but the inferior weapon did not prevent its users from winning the campaign without experiencing a single serious reverse.

"Nowadays the rifles of all Powers are so evenly matched at the beginning that it is a mere matter of luck as to which, at the moment of any given encounter, possesses the best shooting weapon. Thus one regiment whose rifles have already fired three or four thousand rounds may meet a similar unit with arms fresh from the magazines, and down the range the latter would be, in the hands of skilled marksmen, at least 10 per cent. the better weapons. But, does any one who has studied the records of past experience believe that even such a disparity would outweigh all the other factors of discipline, mobility, and the skill of the respective commanders?

"It is these three latter factors which really decide, and act and react on one another in the following manner. Not even the skill of

a Napoleon could achieve anything with troops not drilled to obedience and trained to stand up to punishment. Given these, and superior mobility, and then his skill will be manifested by the manner in which he maneuvers to secure favorable targets for his men, and when the men find that their leader always finds them targets they can hit, their confidence in him increases, and they will do and dare more to execute his designs. * * *

"The following table gives the figure of merit of the short rifles at various ranges, as compared with the figure of merit of our long rifle and the service rifles of France, Germany and Italy at the same ranges:

	Figure of Merit.			
Country.	200 yards.	500 yards.	1,000 yards.	1,500 yards.
France	.33	.58	1.29	3.42
Germany	.35	.77	1.52	4.02
Italy	.27	.73	2.04	3.04
Great Britain				
(*a*) Long rifle	.27	.62	1.72	4.43
(*b*) Short rifle	.21	.71	1.21	2.99

"The publication of the above table has led to an outcry against the adoption of the short rifle, as indignant correspondents in the Home Press maintain that the figure of merit conclusively proves that as regards this test the new rifle is badly beaten, not only by our present long rifle, but by those of other powers as well, and threats are being held out that awkward questions on the matter will be asked when Parliament assembles. It is really the fault of the authorities that this storm in a teacup has arisen, by their casually issuing a statement, ostensibly for the benefit of the general public, without a word of explanation as to the meaning of 'figure of merit.' * * * As a matter of fact, tests prove that, with the exception of the 500 yards range, the short rifle beat all competitors to 1,500 yards inclusive, though after that range the shortness of the barrel should be a handicap when opposed to a longer barrel. For all practical purposes, therefore, the new weapon fulfils all requirements for the present. Still, this should not be considered as an excuse to rest from further experiments in the direction of improvements, as this little national trait of ours has landed us in the predicament of our Artillery being armed with guns inferior to those possessed by even third-rate powers."

The *second* article, by Lieutenant-Colonel C. B. Mayne, R. E., is so important that we quote somewhat at length:

"The uses of cavalry in the field may be classified as follows:—

"1. Scouting and reconnaissances.
"2. Skirmishing on foot or when mounted.
"3. The charge in battle.
"4. The conduct (or warding off) of pursuits.

"The lance is avowedly a weapon for the charge, and so the question of its usefulness or desirability can only apply to the two last-named uses of cavalry. The lance is also admittedly of little use in a *mêlée*, and a long list of writers can be given who, in consequence of this, have advocated either the lance for the front rank only and swords for the supporting rear ranks, or that 'lancer' regiments should be closely supported by 'sword' regiments. The lance has only been of use in skirmishing when used by races (such as the various Cossack tribes and the kindred Poles) accustomed from childhood to its use and to riding, and whose horses had also been specially trained to the weapon and its use. Moreover, these races were opposed to fire weapons which were practically harmless except at a very few yards' range. But even then, with all these conditions in their favor, these 'lancer' races failed before equally good horsemen and horses who were not afraid to charge home at speed, sword in hand. For example, the Line Cossacks had to give up their lances and take to the sword in order to compete with the Circassians, who invariably defeated them until the change was made. The Cossack and Polish lancers, from whom the Western nations in Europe have borrowed the lance as a cavalry weapon, were essentially irregular light corps, whose specialty was scouting, skirmishing, and plundering, and who only attacked small detached parties of the enemy in days when exposure at short ranges did not mean pretty certain death. However, it has been fully recognized that in the face of modern rifles and smokeless ammunition the lance nowadays is a serious encumbrance during scouting and skirmishing work. * * *

"From all the long review that history gives us of the employment of cavalry in war, I would ask this question: Why, if the lance has the great value that its advocates claim for it, has not this value stood out as a marked factor in war, clear and indisputable? As a matter of fact, all the grand traditions of cavalry, including our own, have been made by swordsmen, and not by lancers. It is the training and leadership of both men and horses that have produced the great tactical and strategical results of history, and not the weapon carried by the men.

"Seidlitz, Frederic's great cavalry leader, was very strong on the principle that a cavalryman should put his horse on top of his enemy. He wrote:—'In the charge it is a matter of indifference what weapon the soldier carries. The chief thing is that he should be well mounted, and that he should bear in mind the unshakable resolution to ride the enemy down with his horse's breast. In the *mêlée* the sword and mace are the only weapons practicable.' This principle of using the horse as the cavalryman's true weapon is now enforced in our cavalry training, I am glad to see. This use of the horse, combined with speed and with mobility in mass, forms the essence of a victorious charge, and the Russians are very wise in accustoming their horses to ride at speed into dummy figures.

"I have only touched on the uses of cavalry as affected by their armament. Consequently many vital questions affecting its strategical and tactical uses and the conditions for obtaining really decisive strategical and tactical results with cavalry have not been dealt with. All that I have endeavored to show is that the true weapon of a cavalryman is his horse, that the historical hand weapons of cavalry are the sword and firearm, and, therefore, that the abolition of the lance, especially under the conditions of modern warfare, is a step in the right direction. The sword is for use in the charge at speed and in closed mobile masses, when suitable occasions arise for a great decision to be made by shock tactics, as they will do in any fight; on the other hand, for the greater part of the other duties of cavalry in war the firearm will be the weapon that will be made use of by the trooper.

"The lance is a weapon that requires a long and continued use before even average skill can be attained with it, and even then it is of little or no use in a *mêlée*. Moreover, it has never prevented determined horsemen from attacking cavalry armed with it, nor is there any historical example where such attacks have been overcome solely because of the weapon in use. In the charge the man and his horse, taken together as a unit, is the cavalry weapon, to be used at speed and in as great a mass as possible, consistent with mobility, so as to create what Cromwell called "a tornado tempest" with which to destroy the enemy's power of resistance. Such impetuous cavalry charges in mass and at speed, when made at the right moment and at the right place, have always produced such astonishing and far-reaching results that cannot ever be reached by the other arms of the Service, and, as I have already said, all the magnificent traditions of cavalry in winning victories have been made with the sword.

"In fact, the hand weapon is altogether a secondary question to

that of the shock use of 'the man and his horse.' Cavalry are not required to make a charge an occasion for a display of skill of arms, but for breaking down the enemy's power of resistance by the force of the shock of the charge. The use of hand weapons is a secondary matter in the charge, though, like all secondary matters in war, should be made as efficient as possible in order to make the primary factors more telling and effective."

MILITARY HYGIENE.

1. Physical Preparedness and the Organized Militia.—*Jour. M. S. I.*, March-April.

MISCELLANEOUS.

1. The Sick Horse in Peace and War.—*Jour. R. U. S. I.*, Jan.
2. A New Infantry Range Finder (illustr.).—*Kriegs. Zeit.*, 1.
3. The Cyclograph (recording the path of a cyclist).—*Same.*
4. The Microphotoscope (the new General Staff map-reading lens).—*Same.*
5. A New Drawing Instrument.—*Same.*
6. A New Gauge.—*Same.*

NEW EXCHANGES.

The Royal Engineers Journal. Chatham, England: Royal Engineers Institute. One Shilling a number.

SERVICE SALAD.

Readers of the "United Service" are cordially invited to contribute to this department items of either fact or fancy, grave or gay, instructive or only entertaining; in short, any literary flotsam and jetsam likely to interest our subscribers.

PEREUNT ET IMPUTANTUR.

(From Blackwood's Magazine.)

Whether or not General Buonaparte actually poisoned his wounded at Acre and Mount Carmel, lest they should fall into the hands of their ruthless enemies, is one of the controversies of history. An equally moot point is his right, or that of any man, thus to anticipate the workings of Providence.

The following tragedy involves the same controversy; while of its truth there are but two vouchers, the grey hairs in the head of the officer concerned, and the memory of Dip Bahadur Gurung, the orderly—but he saw nothing unusual in the incident.

Away up above the Third Defile of the great Irrawaddi in the province of Upper Burma, a small cloud had appeared on the peaceful horizon, at a time when the melting of the snows had so blocked that defile that the Government launches could not ply between the larger military posts and the small detached garrisons up the river. The Freebooter, the Scout, and the Pirate dare not breast the rush of water in the gorges, where the Buccaneer already lay at the bottom from an over-rash attempt to get through the defile last fall with medical stores. So from the month of May, when the waters rose, to late in the autumn after the rains, the troops up-river were quite isolated, and it was a season in which the Government and all reasonable tribes abstained from hostile acts.

It was no wonder, then, that the authorities were much concerned, when news arrived that a pretender to the throne of Burma had crossed the frontier of China, and was making war against the British. A prince of the blood, forsooth, had appeared, with proclamation and peacock banner, with forty Chinese black flags, and a score or so of Burman wolves' heads harbored in the State of Sansi. Now, a prince of the blood was no new thing in Burma, or a princess and maid of honor either, for that matter, since the blood of Thebaw ran in as many channels as that of the Stuarts and the Bourbons, and of titular claimants there was no end; but Burman Perkin Warbecks, on the Upper Defile, with the river swollen and the

rains approaching, called for immediate action, lest a real rebellion should follow. Since an army at that time of year could not be sent to grapple with the pretender, the subaltern in charge of the nearest Military Police post would have to go instead, and if he fail, why then something else must be done; but in those days there was much confidence in the capacities of police subalterns to deal with minor crises.

The following telegram, therefore, arrived one May morning at the Military Police post of Tali from the civil Commissioner of the division:—

"To the Officer Commanding at Tali.

"The Shwedon prince, with Boh Htee, and Boh Wasaw, and twenty Chinese, armed with Remingtons, were at Waimone two days ago, endeavoring to stir up the Shans [stop]. The Wuntho Tsawbwa, with two elephants, is reported coming south to join him [stop]. Try to capture the prince before he gets a following [stop]. You will be reinforced tonight by Lieutenant Reever and thirty men of the Tsenbo Battalion in the launch Pathfinder."

Clear instructions, and simple enough in all conscience, putting the burden of failure on the subaltern, and leaving plenty of bricks to be made without any mention of straw; a perfectly satisfactory arrangement, however, to the officer concerned, who, coming from a smart native regiment to seek retrenchment and a district where the Queen's writ ran but slowly, had developed a craving for responsibility, and a love and much aptitude for the rough-and-tumble soldiering in the Burmese jungles.

To our subaltern, James of the Levy, late of Hearsey's Horse, and better known in Hindostan as "Jimjams," the proximity of the filibustering prince was already known, and his interpreter and a couple of Jharua scouts had been despatched the previous night to get ken of him. Pending their return, the only thing was to take stock of and mobilize the available garrison. Fifty-seven Goorkha and Jharua rifles of the Levy, ten Sikh mounted infantrymen, with a hospital assistant, two signallers of a Madras infantry regiment, and a telegraph babu, comprised the sum-total of the force, to which might be added five pack-mules and a couple of muleteers—not much to engineer a Culloden on, even with the expected reinforcements on the Pathfinder thrown in!

The total force available when the launch had arrived would not be more than seventy rifles, since the post, the usual sapling stockade, with fringe of bamboo pangies* and shallow ditch, had five months' rations stored, and could not well be deserted. Three only of the five mules were fit to be saddled, and these would carry a pair of 80-lb. flour-sacks—two scant half-rations per man—two boxes of reserve rifle ammunition, and the third would just take one waterproof sheet between two men, and a couple of blankets for the white officers—a slight concession to

*Pangies=spikes.

the value not only of the white man because of his color, but to the necessity of nursing the headpiece; a necessity sometimes overlooked in excess of zeal. Every man would have to carry his cloak *en banderole,* and sixty rounds of Snider ammunition, a wound from which meant a real business wound, and not a ten days' imitation, allowing the victim to return to take part in the next fight.

At noon the Pathfinder hove in sight round a bend in the river, chunking hard against the swollen her decks, and her tripod Nordenfelt, the pride of her Mugh *seraing,** glinting in her bows. Full four hundred yards above the Tali landing-ghaut she struggled up-stream, and then swept down on the flood to the steep bank, deftly avoiding two huge snags, and cleverly sidling alongside at the exact spot, much to the admiration of a row of Shan girls, who, squatting above, smoking the inevitable cheroot, were thoroughly enjoying the proceedings. On the tiny bridge stood Reever, and by nature reiver, clad, after the fashion of the Irrawaddi, in short loose breeches of blue Shan silk, and khaki jacket atop, and by him a Pathan native officer. "Hulloa, old man Jimjams!" shouted he; "what's up now?" "You come ashore, young feller," returns James, "and I'll tell you. Big thing this. Biggest thing in Upper Burma." And the two leaders then held a conference full of sound ideas lightened with the chaff that is inseparable from the British subaltern, even in the gravest crises. Soon after the conference the two scouts came back with fairly ample news; twenty miles and more had they been to the Shan Talok village of Sadon Pa, under the peak of Kumpi Pum, where they had found to much to do, for the Shwedon prince had passed through the night previous, and had carried off six maids of the village. The Thugyi (headman) had objected, and now hung crucified for his pains; and the mother of one of the girls who had dared protest had been hung up by the hair to a tree, sprinkled with kerosene, and then set alight, amid the jeers of the pretender's army. The poor Shan Taloks, the most peaceful and industrious of our new subjects, had asked pitifully if the great English queen allowed such doings, and the interpreter had taken on himself in the *Sahib's* name to promise full vengeance. Further and most vital information was to this effect, that the prince and his followers, who numbered about two hundred had moved to another Shan Talok village, some seven miles on, named Namli, and were to be waiting there till the Yawlin tribes had joined them, and that a dozen maids of that village had been requisitioned by them, which no man dared resist, therefore they prayed the Thakins to come quickly to their rescue.

Now Namli village lay a good three-and-twenty English miles to the southeast of Tali, through the steep gorge of the Karee Chaung and over the ridge of the sister Pums, as hard a track as man could wish to climb;

*Seraing=skipper.

but still within reach before the next morning to troops as hard and fit as the men of the Levy, provided they lost no time in getting away.

James was a man of action, and Reever was eager as a terrier, so in an hour's time the little force was paraded outside the stockade—fifty men of the Levy, twenty Sikhs, of Reever's lot, three mules, and the doctor babu, who was to ride the mules by turns atop of their actual loads, every man with his cloak and as much rice and chapaties as his haversack would hold.

As they were parading, a telegram arrived from the Commissioner, to say "the General hopes you will be very careful; no reinforcements can be sent you for some weeks." "Silly old bird," remarks the irrepressible Reever; "nice of him to cheer us up." The more tactful James, however, despatched a reassuring message to say that he would observe the greatest caution, remarking that it was high time the enemy cut the wires. Not the first commander by any means to utter such a wish, nor the first to have ready agents to "rid me of this turbulent—telegraph."

At the last moment, on the suggestion of a native officer, the route is changed, and the men are packed into three large talaungs with Shan rowers, by which some six miles of the road might be accomplished without fatigue to the footmen, by rowing three miles down-stream and four up the Karee Chaung, the ten mounted men and the mules going by road to meet them. By this means, too, the villagers of Tali would not know the route taken till the column was some miles on the road.

As they were starting another telegram arrived, this time from an officer commanding a police battalion up-river, and calculated entirely to counteract the effect of the General's message. And it ran thus: "Good old Jimjams, ride straight at him; am coming after you as soon as I can raise some men; send Pathfinder up here."

By three in the afternoon the boats were dropping down-stream at a good five miles an hour, the Goorkhas and Sikhs in the best of spirits, the officers in the leading *talaung* busy examining the very meagre maps of the districts and cross-questioning guides. Fortunately, a native officer had been to Namli by that route a couple of years before with a boundry survey, what time the Chinese had overrun the frontier and blown up our boundry pillars. After half an hour's run down-stream, the flotilla swung round a bend by a big reed-grown sandbank into the mouth of the Karee Chaung, and at once commenced to pole up-stream, past piled village and fertile rice-flats, feeding ibis and flighting wild-duck, till some four miles from the Irrawaddi the leading boat stuck on the sand, and they saw the mounted infantry, ten bearded Sikhs, wating for them on the bank. Five minutes sufficed to disembark the expedition, and five more to get it under way, the mounted infantry in advance till dark. Seventeen miles had to be covered, seventeen remarkably stiff miles, too, for the road was already ascending, and nothing but a goat-track at that. James intended to push along for some ten miles till he reached the second crossing of the Karee stream, somewhere about 8 P. M., and there to halt for a few hours till the moon rose, ere he ventured into the tangled paths in the bamboo jungle that fringed the lower slopes of the eastern hills above the stream.

Away troteed the ten Sikh horsemen, to gain two or three hundred yards' start; after them trudged the sturdy stuggy Goorkha footmen, eternally chaffing the solemn long-legged Sikhs of Reever's party, who brought

up the rear in dignified silence, till the white officers bade the chattering Mongolians cease their clavers also. Behind followed the three mules, with the unhappy doctor babu jogging and jolting on the leader.

Through bamboo-thicket and teak-forest the road took them, ever in single file, past cool silver streams and sour acrid marsh, to the chagrin of the huge coulon in their evening feed; up into rocky defiles, where the orchids hung on the trees in glorious pendants; through wattle villages, where the villagers yelped delight; and on over the wooded col, till again the path dropped as the sun went down, towards the grey shade and the cobalt mist of the Karee valley, to the flighting teal and the shrill whistling of the bamboo partridge.

Shortly before eight o'clock, as the last streak of day was disappearing in the haze of the valley, the little column reached the Shan village of Heylon, and as it swung into the hamlet it shied visibly at three ominous shapes that stood out clear against the sky.

Three St. Andrew's crosses were silhouetted in the night air, and on them hung three dead Shan Taloks, of whom one was the Thugyi (head) of the village, and another was a wretched old woman, some poor scolding old body who had dared raise a quavering voice against the prince's raiding dacoits. Accustomed as is the native mind to ideas of tyranny and bloodshed, even the Goorkhas cursed to see the sight, and the two English wardens of the frontier swore silently into their beards that the Shwedon prince should pay a fair and true reckoning for his piracy.

In the village, whose inhabitants had fled to the jungles, and small wonder, it was decided to halt in the company of the poor victims till the moon rose; and the sepoys munch their chapaties and rice, and have the last sleep they were likely to get for many a weary hour. The party dozed in a sort of a square, round two isolated houses at the far end of the village, well removed from the three gruesome crosses, and the most defensible point, at which also a Cossack post was established, covering the approach from the east.

At midnight it was proposed to start again and try to cover the seven miles to Namli by 4 a. m.; dawn would not be till five.

At 11 p. m. the moon rose over the jagged tops of the bamboo jungle, covering the hillside opposite, waning, but still strong and powerful; and James, peering round his bivouac, could see the round cap of his sentry sharp against it as it rose, standing out from the shadow of the long log house that concealed him.

Hardly had the moon cleared the tops of the bamboos, when the light swish of a pair of grass-shoes could be heard coming down the rocky path opposite and splashing through the stream. James slipped across to his sentry and roused the two men of the relief; as he did so a Shan, haggard and drawn in the moonlight, dragged himself up the rise from the ford, stretching out before him a bleeding arm from which the hand had been lopped. No need for the levelled bayonet of the sentry, or a spring by the rest of the picquet; the poor wretch's murmur of relief on seeing the British showed clearly enough whence he had come, and while the doctor babu dressed his stump, his tale was unfolded to the two officers. A right valuable tale it was, too, as ever came to a leader seeking intelligence of his adversary, for the Shan was son to the Thugyi of Namli, and had been sent forth the last

evening by a bypath to fetch such aid as he could from any village that dare resist the prince, and if possible warn the British. A raiding party of the intruders had come on him unexpectedly, and deeming him a straggler from the village, had cut off his hand merely in their light-heartedness, as a warning against straying from home. After which he had struggled on to the Karee Chaung, and this was what he knew of the enemy. The main body, now some four hundred strong, for some Yawyins and three Kachin Tsawbwas had joined them, lay in the village of Namli, occupying the houses and doing as they pleased. The prince and several of the Bohs, with their immediate following, lay, however, in the Thugyi's house, which stood apart from the village, some two hundred yards on the hither side, along the narrow spur which jutted out from the main ridge. Further, a picquet, furnished by the Kachins of the Sakong-wa, was posted a bit lower down the spur behind a stockade made by forced labor from the village that afternoon. He himself had been sent by his father in charge of the tally of villagers for the *corvée*.

A moment's reflection showed James that chance had given him an opportunity he had hardly dared hope for; could he but pass the picquet he might secure the prince and the Bohs, and get them away with the mounted infantry before he need deal with the main body or fear a rescue from them. How to surprise the picquet of Kachins was the problem, for the Shan said that the jungle round the spur was too thick to be traversed, while the noise of men passing through it would be bound to attract attention; the Kachins, however, had looted all the village supply of *shumshu*,* and might well be sleeping. He himself was none too weary for revenge, and if he might sleep for half an hour would gladly guide them. The scheme of surprising the picquet was far too promising to be neglected, and the whole lie of the pretender's bivouac was more than propitious, so in half an hour the little party was ready to move off.

The ponies of the mounted infantry had been fed on the young bamboo leaves and a handful of unhusked rice from a hut hard by, and the men had had a good meal, while Reever produces his whisky flash and insists on James taking a pull of the wine of the country to keep the fever out. The general scheme is explained to the native officers, and some suggestions by one of the Goorkhas adopted, and the party tramps off—no advance-guard this time, since touch might be lost—the mounted men in rear, James, the Shan, and four Goorkhas leading, and nothing but the broken shadows in the moonlight to show that a movement was afoot. Seven miles of broken track by night is a weary march, and it was not till close on 4 a. m. that the guide indicated that they were at the bottom of the spur leading up to Namli.

Here the leader halted his party, to close up and generally get ready for the final act—final, at any rate, for some of them—for the Burman if caught in a trap can turn and fight, ay, and sting too, like many another folk the British army wots of, who have no stomach for a stand-up fight unless the odds are more than favorable. But it is always the lot of the junior officers, who keep watch and ward on the marches that follow the sun in its course, to have to lay the odds, and thus to tackle a calculat-

*A fiery beer brewed from rice.

ing foe; for no nation expects more bricks for less straw than shopkeeping England, though, unlike Pharoah of old, she gets little murmuring from her slaves. For a miserable pittance they give work that gold cannot buy, and take many a hazard that prudence and the laws of chance forbid, . . . and win, or fall to the tormentors of the half-penny press.

With some such thoughts as these, then, James of the Levy cast about in his mind how he might win the hazard; the burdens of responsibility, that break so many gallant hearts, heavy on him, and his mind vexed with the many pros and cons that fate sends to weaken determination. It is not many men that can face desperate responsibility unmoved, as good leaders know right well, and keep tneir knowledge to themselves.

Round the leader squatted the Coorkhas as they straggled up, cheery and eager, like terriers round a rabbit-warren, void of imaginations, and blindly confident in their officer of an alien race. Behind them closed the Sikhs and the trusty Reever, eager for blood, uncursed with nerves, and free from any responsibility save that of loyal support, a very swashbuckler of the best class. Who could ask for better men, or not agree with gallant Henry that the fewer men the more honor? So James of the Levy took heart of grace, as he glanced at the squat, eager, almond-eyed faces of Magar and Gurung, and the steadfast impassive visages of the yeomen Jats, and reflected that, big or small, he would chew the chunk, and give his men a run for their money, come weal come woe, like the hearty John Bull he was.

Four a. m. and an hour of precious night remaining, as the raiders swung up the hill spur, and tripped and cursed as they scrambled over the rocks that had forced their way through the skin of the hillside. In the valley below a barking deer was coughing itself awake, and the village cocks had already commenced their reveille. Up the last eight hundred feet of rock and bamboo scrub struggled the British, the sharp, uncanny morning breeze caressing their faces, and compressing their hearts and lungs, four cat-like Goorkhas leading, kookri in hand, and then the resolute Jimjams. Beside the latter, a rope round his waist, lest he play them false, and at the other end of it another of the Mongolian fraternity with ready bayonet, marched, little loath, the unfortunate armless Shan, who had already intimated that the Kachin picquet must be near by. The moon had sunk, and the waving ragged bamboos blotted out the faint indication of approaching dawn, when from the gloom ahead came a shout and a curse from the leading point, who had stumbled over the prone body of a sleeping man..

"*Bahut i dushman raste men sote hain,*" came back the cry (many of the enemy are sleeping in the path), and straightway instinctively the four leading scouts rushed on the sleeping picquet, followed by James and those close behind him, tumbling over each other and throwing themselves on any of the enemy visible, as they struggled up from their beery sleep. A wild rough-and-tumble ensued, kookri and dah, bayonet and matchlock rifle-butt to Tower musket. British hands on Burman throats, scratch and bite and scuffle; stabbing knife and stunning club, while the bamboos waved against the lightening east, and the cocks crowed louder to wake a sluggard force, and all the while the file of British swarmed up the path to watch an almost silent struggle in the grass that fringed the path.

A dozen couples rolled on the ground, and it was too dark to tell friend from foe. James was atop of a powerful Kachin, whom he was trying to strangle, while the other tore at his tightly screwed eyes, till a Goorkha near him stabbed his man, and then did the same for his leader; another had clean hacked the head from his adversary, and was wiping the blade on his victim's shirt, for a Goorkha loves his weapon; three or four more had hammered their men to silence, and were tying them up, and a few still struggled together.

In the middle of the hurley-burley a huge fat Kachin, the Boh of the party, had wrenched himself free from two men who had seized him, and in a wild frenzy was whirling himself round and round, a long keen Chinese sword in his hand, and already had severely wounded a couple of Goorkhas, while in the grey dusk it was hard to get near him. At this moment Reever and his Sikhs came up with bayonets fixed. "A damned dangerous fellow!" quoth he, and promptly three long-armed Singhs drove their bayonets into his ample paunch, which practically finished that picquet.

Fortunately not a shot had been fired, and the struggle in the dark had been too sudden and sharp to allow of much shouting, so that as the British straightened themselves out and secured the prisoners, James hoped he might still secure the prince, whom the guide declared was in a house a hundred yards or so further along the spur. James, with twenty or thirty men, hurried on, bidding Reever follow with the remainder, and in five minutes more had surrounded the huge bamboo hut, hung with horns and skulls, as becomes a headman's residence. Up the ladder and into the front room burst the raiders, and found it, as was expected, full of sleeping forms. Half were secured before they could free themselves from their blankets, several jumped from the back door into the arms of the British below, and four or five showed fight in a corner, like rats in a hole. The Goorkhas and Sikhs had now seen blood, and recked little of desperate men, who were soon overpowered and bayoneted; not however before, unfortunately, one of them had discharged a horse-pistol in a havildar's face, and another emptied a Belgian revolver into our ranks, so that three of our men were down, and the alarm given once and for all. In the village, a hundred yards away, the angry hum of men could be heard, and already stray shots were dropping by the headman's house.

"Take the prisoners away at once with the mounted infantry, Reever, old man," shouts James, "while I hold the end of the village; make straight for home, and never mind me." Then, to the Pathan native officer, "Get the wounded away at once; leave the dead where they lie; use the mules, and take ten of the Sikhs with you." He then hurried to seize, if possible, the nearest house to that in which the capture had been made, whence to cover the withdrawal with the prizes. He could not hope to tackle the whole gathering without risking unduly the safety of the prisoners, and he could not bring himself to slaughter the latter so long as there was any hope of getting them away as prisoners. Therefore it was that he and some forty men found themselves holding the two end houses of the village and firing down the street, for it was built along the crest of a narrow spur, in the endeavor to keep back the angry crowd that surged up from out the huts and from their bivouacs on the hillside.

Away behind, Reever was bustling off his prisoners—seven notables, and the captured Kachins of the picquet as well—and of these five were perched on captured ponies, their legs tied beneath them, and the remainedr aided down the hill on foot by the moral suasion of insistent bayonet points.

Five dead rebels lay in the house, and as these might well be wolves'-heads and men of note, for whose capture or certified destruction a Government reward had probably been proclaimed, it was only fair to the authorities, and the troops concerned in the capture, that there should be no doubt about the matter. Accordingly an expert Goorkha whipped off their heads, which were stowed in a sack for identification by the nearest civil officer—a lamentable act, but one absolutely necessary where the peace and welfare of the borderside depends on the removal, beyond dispute, of the outlaws who "shoot at the strong and slash at the weak," out of pure spite for the ruling power.

When a whole corpse cannot be presented for identification by the crowner, it is good enough on the Eastern Marches to produce the head, so that, reassured at the sightless grin, the merchant, the shepherd, and the farmer may once more resume their work in peace and security; and who shall criticise the local wardens for their action? What was good enough for the gallant misguided English gentlemen who joined the Young Pretender, and whose skulls whitened for many a year on the gates of London, scarce a century and a half ago, was good enough for the pretender's following who tortured and robbed for personal gain on the shores of the Irrawaddi.

While Reever, then, was securing prisoners and scalps, and the Pathan native officer was hiding the British dead and lifting the wounded away down the hill, James was being involved in the most desperate of rear guard imbroglios, from which the prospects of easy withdrawal grew momentarily dimmer. And all the while the east grew brighter, and the stars faded, and the cool wind played on the orchid blossoms that drooped from the trees, as if Bohs and pretenders, dacoits and soldiers, with their evil accessories of rifle and dah, headless corpse and crucified villager, had never trespassed in so fair a garden. The sun shines happily on God's earth, and the flowers bloom to the raiding insect, regardless of man's evil, yesterday, to-day, and for ever, as it shone on Saxon and Norman by the hoar apple tree on the bare ridge of Sussex Senlac in bright English September; on the piled heaps of red and blue in the vineyards on the Two Arapeiles; or on the horror in the plaisaunce of Hougomont in the haze of a midsummer day—and as it must shine on many a stricken field yet in the world's history.

For half an hour the rebels had contented themselves with firing at the rearguard from the cover of the hillsides, at some two hundred yards' range, and with beating gongs to encourage each other; but now realizing that the party they had to deal with was but a handful, they were closing in and moving round the lower slopes of the spur. A lighted arrow had set one of the huts on fire, and forty or fifty men with dahs were endeavoring to close with some Sikhs on James's right; a couple of men were lying dead, half a dozen had been wounded, though none seriously, and a havildar had returned to report that the prisoners and the wounded were now well on their way down the hill. Now was the moment to retire, and under

cover of a rush on the enemy, who were trying to get to close quarters, the party scurried back to the headman's house, till they were joined by the handful that had made the counter-attack. After them poured the exultant enemy, slashing at the two bodies that had been abandoned, and snapping muskets and matchlocks that fired hammered iron slugs, and now and again a whizzing Remington bullet.

A further retreat was ordered to the brow of the ridge, where the picquet had been surprised a short hour before; and here James decided to hang on for a half-hour more, to give Reever plenty of law, and then to make his way clear away as best he could. In this further withdrawal another man presumed dead had had to be abandoned, and to his horror he saw that a man, evidently wounded as the dart back had commenced, had been left behind, and was being hauled away by four Chinamen, out of sight into the jungle, with every prospect of death by torture before him; and since the good of the greater number must ever in war be weighed against the safety of the individual, an attempt at rescue was evidently out of the question, as James had to acknowledge to himself. Now this is a point which chivalrous men are apt to forget in war, and only when a costly rescue is a necessity, for the maintenance of *morale*, should it be attempted. Medical officers, who so gallantly expose themselves to dress wounded under fire, should realize the grave folly they are committing in jeopardizing the welfare of the members they minister to, by risking their lives for the benefit of the one.

So, with deep burning rage in his heart and a red-hot carbine in his hand, James and his remnant once more settled down in the bamboo grass, cuddling their war-worn Sniders, and muttering to their sharpened kookris and long triangular bayonets, ready enough for the appeal to steel when the diminishing cartridge store finally ran out, as it was bound to do ere long; and saw that the yelling, furious crowd, however so much they shirked cold metal at short quarters, were steadily working round his flanks, and that his next move back would mean running the gauntlet through an alleyway of assorted firearms. Fifteen minutes of his allotted endurance had passed, and he ordered back down the hillside half his men, who carried two badly wounded men with them, and with whom were all of the slightly wounded. They were to pull up some four hundred yards on, and wait for him to withdraw to them. Down the path they scrambled reluctantly, for their blood now recked of little, and surged with the lust of battle; but James knew well enough that a useless waste of life was no part of a soldier's business, and that La Gloire had been many a man's ruin, so off they had to go—glory to the Sirkar, and victory to the Khalsa, and every other warlike sentiment notwithstanding, howl the enemy never so derisively—while James himself, with Ghurruck Singh, the grey-bearded old Sikh soubahdar, and a round dozen of Singhs and Thappas, kept the path behind them, as Horatius kept the bridge of old. Ghurruck Singh spat and swore deep into his beard, a dead man's Snider in his hand; and the Sikhs stood up and fought regardles of exposure, like the stubborn, slow-witted yeomen they are, quiet in attack and dogged in defence, fighting with that majesty that Napier ascribes to the British soldier of the old line; while among their legs in the grass and between the rocks the Goorkhas crouched invisi-

ble, and fired away steadily into the jungle, though little enough of their enemy could they see. Thus slowly James drew his party off, snarling and biting, by knots and clusters, pushing his wounded on before him, and all the while the enemy buzzed round, rarely visible, constantly firing, and ever and anon rushing in to club some unfortunate who had fallen behind unseen; till at last, through much weariness, the lust for fight in the men's hearts gave place to the lust of life, as must ever happen with the best of human soldiers, and the rear party dwindled, through men slinging off to join those in front, till but six remained. With them, unfortunately, were two badly wounded men—gallant old Ghurruck Singh, who weighed fourteen stone, and a Goorkha—and an attempt to carry them a few yards had shown that, unless they were abandoned, the whole party must be cut up. Already the enemy were closing round and mustering courage for a rush in, and James had to face the alternative of leaving them to a horrible fate or sacrifice the entire party. Dip Bahadur Gurung, his orderly, spoke softly to him, and James nodded his acquiescence.

A sharp order sent five of the survivors doubling back through the tufts of tall flowery pampas grass that covered the banks of a stream they were approaching, with orders to cross and wait on the opposite bank, so that James and Dip Bahadur, his orderly, stood alone facing the enemy beside the two sore wounded men. The old Sikh groaned, tried to rise, and fell back heavily; a partridge piped in the jungle hard by, and two Kachins peered round a fallen teak-tree and fired at the group. James looked at the orderly and nodded, placed his revolver to the native officer's head, fired, and Dip Bahadur did the same with his Snider to the wounded Goorkha. . . . The two then by one common impulse leapt towards the crouching Kachins by the tree-trunk, and shot them both ere they recovered from their surprise; and then plunged into the mass of pampas grass in the wake of the rest of the men, Dip Bahadur unconcerned enough, but James with a wild set look that he was not to lose for many a day, and which will return to him whenever his memory stirs, till he too goes to join brave old Ghurruck Singh with those who die for duty's sake.

Further it is not necessary to follow the weary homeward way, save to say that, by the village of the crucifixion, where the expedition had halted on the Karee Chaung the night before, Reever and his party were waiting for the rearguard, which was gradually joining him in small groups, as they struggled up with empty pouches and limping wounded, till at last James and Dip Bahadur turned up too, and reported that the pursuit had gradually died away after the last stream had been crossed. Here a halt was made for a couple of hours, and the roll called, with a resulting deficit of thirteen on the full tally; and against this, seven notable prisoners, including the reviving prince who had thought to rival the Sirkar, five common Kachin villagers of the picquet, and a possible gold mine in the sack of unindentified heads. At which result Reever was proportionately elated, and much concerned at James's tactiturnity, an attitude which to this day he cannot account for.

Late that evening, when the sun had died away below the jade-mines' hills, the British cavalcade, weary to dropping, and quietly exultant, filed

into the parade-ground outside the Tali post, and there they found the Pathfinder with two *loungs* in tow, and men of the 'Nsentaru Battalion disembarking, to the number of two strong companies. A telegram was also waiting from the Commissioner to say, "You are not to start till Captain Crowhurst arrives from 'Nsentaru, to take command with two hundred more men—acknowledge," and Crowhurst, keenly disappointed at being too late, could only say "Good old Jimjams!"—a remark very similar to that which arrived, framed in more official language, from the Chief Commissioner and the General at Mandalay the next morning; to be followed in due course with more substantial recognition, for in addition to the capture the whole gathering was found to have dispersed when the larger force moved out.

And now James, late Jimjams of Hearsey's Horse, and some time James of the Levy, is Major James, D.S.O., and second in command of that same incomparable regiment of Silladar horse, and as fine a soldier as ever wore the dress of the Bengal Cavalry, which is saying a good deal; but though his brother officers like and respect him, they can trace little resemblance between the cheery rowdy Jimjams whom they sent off in their best style to Burma to save money and escape his creditors, and the serious zealot who now lives for his profession alone.

In Major James's bungalow, beside the gun-rack and the tally of polo-sticks, hangs a heavily embroidered peacock banner, "stiff with gold but stiffer with gore," and under it a photograph of a handsome old Sikh sirdar of the old school, on which is written a date, and the old dog-Latin couplet from the sun-dial in the old garden on the Ranworth broads; the epitaph of the hours that pass and the beasts that perish, not unrecorded —". . . *Pereunt et Imputantur.* May 17th, 189 . . ."

G. F. MacMunn.

The death-roll due to wars during the last century, Professor C. Richet, of the faculty of medicine in Paris, sums up in a grand total of 14,000,000. He divides this as follows: Napoleonic wars, 8,000,000; Crimean wars, 300,000; Italian wars, 300,000; American Civil War, 500,000; Franco-German War, 800,000; Russo-Turkish War, 400,000; civil wars in South America, 500,000; various colonial expeditions in India, Mexico, Tonquin, South Africa, etc., 3,000,000.

BOOK NOTICES.

The Royal Engineer Journal. Chatham, England: Royal Engineers' Institute. Price, one shilling per number.

This new magazine, available for purchase by the public, is practically an offshoot of the *Professional Papers of the Corps of Royal Engineers,* well known in this country for its excellent monographs on engineering subjects of all kinds.

The Institute has concluded that the requirements of the present day necessitate some modification in the form of publication, and will therefore hereafter print articles of interest to the army at large, as well as

those of a technical character, but of general interest, in the magazine, while the *Professional Papers* will hereafter be confined to articles of a highly technical nature.

The present number (Vol. I, No. 1) is a very neat pamphlet of fifty-eight pages, with five original articles, all of general interest, two translated articles, notices of magazines and a list of recent publications.

We wish our new contemporary all success, and are pleased to see that the valuable contributions of the Engineer Institute are thus to be made available to a larger circle of interested readers. J. P. W.

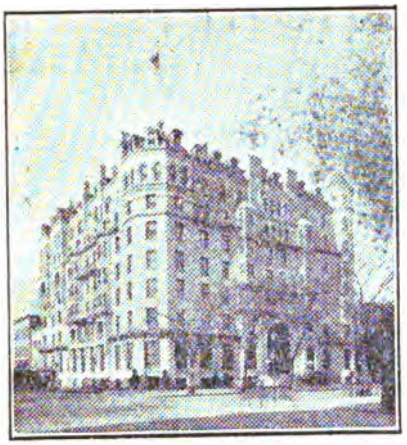
REAR-ADMIRAL THOMAS H. STEVENS,

United States Navy.

Was born in Honolulu, Sandwich Islands. Son of the late Rear Admiral Thomas H. Stevens, and grandson of Thomas Holdup Stevens. Appointed to Naval Academy, 1863, by President Lincoln, from among sons of officers; graduated, 1868; 1868-69, Pacific Fleet, steamer Resaca, Mexican and Lower California coasts; Mohican, on scientific expedition to Siberia for observation of total eclipse of sun, August, 1869. Promoted to Ensign, July 22, 1869; Michigan and Colorado, 1869-70. Promoted to Master, 1870; on duty in Pacific Squadron, 1870-73, flagship Ossipee and sloop Cyane; while attached to latter ship, participated in survey of Isthmus of Tehuantepec for construction of Interoceanic Canal; temporarily attached to Jamestown; flagship Pensacola, 1872-73, in South Pacific; May, 1873, commanded a company of "blue jackets" during the temporary occupation of Panama by armed forces from Pensacola and Tuscarora, for protection of American interests in time of a rebellion; latter part of 1873, duty at Navy Yard, Norfolk, Va.; November, 1873, Navigator of torpedo-boat Mayflower at time of Spanish-American complications. Commissioned as Lieutenant, January 23, 1874; flagship Franklin, European Station, 1874-76; Marion, same station, October, 1876, to April, 1877; Executive Officer, receiving-ship Passaic, 1878; Torpedo Station, Newport; 1879-80, flagship Richmond, Asiatic Station; 1881, Fleet Signal Officer, Pacific Station; 1882, duty at Navy Department, (War Records); same year, Miantonomah and Galena; 1884-86, Asiatic Station; Ranger, Pacific Station (Behring Sea), November, 1891, to June, 1893; Yorktown, Behring Sea and Asiatic Station, May, 1894, to July, 1895. Lieutenant-Commander, February 2, 1896; Cincinnati, North Atlantic and European Stations, May, 1896, to August, 1897; Norfolk Navy Yard, September, 1897; Philadelphia, July, 1898. Promoted Commander, March 29, 1899, and to Captain in 1904; Navy Yard, Norfolk, November 2, 1899; commanding Manila, July 16, 1900. As Executive Officer of the flagship Philadelphia, he commanded the Naval battalion and Hawaiian National Guard on the occasion of the substitution of the United States for the Hawaiian flags, a singular coincidence, as he was at the time the only native of Honolulu who was a commissioned officer of the United States Navy.

During the war in the Philippines he commanded the gunboat Manila for eighteen months, only relinquishing his command at the instance of a Medical Board of Survey.

After service at the Mare Island and Puget Sound Navy Yards—Captain of the Yard at the latter—he attended the course at the Naval War College —summer of 1903—and was then ordered as Captain of the Yard at the Pensacola Navy Yard, Warrington, Fla., where he remained on duty until February 11, 1905, when at his own request he was retired with the rank of Rear Admiral.



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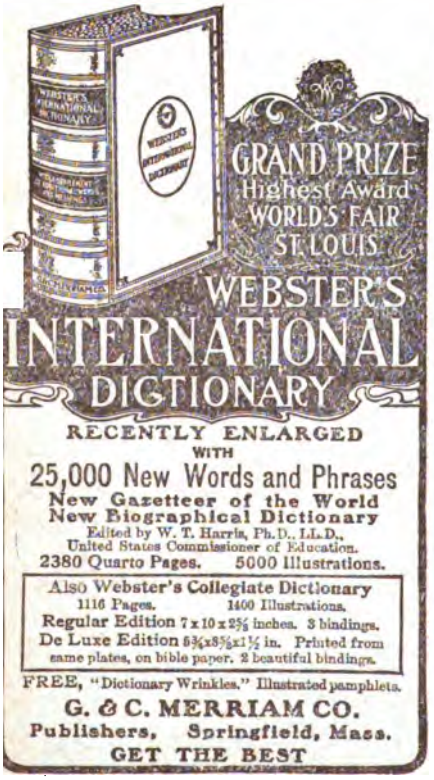

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THIRD SERIES.

VOL. VII.—JUNE, 1905.—NO. 6.

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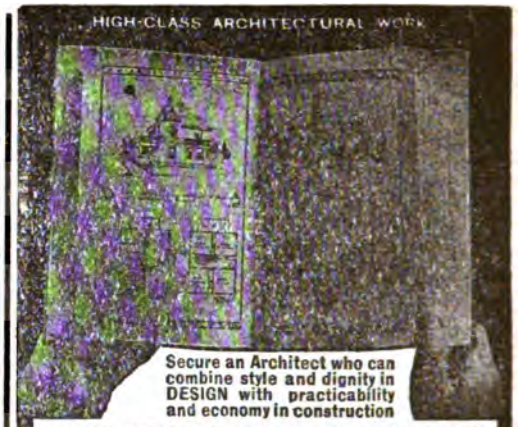

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EDITED BY L. R. HAMERSLY, Jr.

JUNE, 1905.

THE RURAL GUARD OF CUBA.

A Memoir. History of the Formation and Re-organization of the Guard and of the work performed by same during the Fiscal Year 1904, by General Alejandio Rodriguez y Velasco, Chief of the Guard. Rambla & Bonza, Publishers, Havana, Cuba, 1905.

Translated for the General Staff by Major L. A. LOVERING, Inspector General, U. S. Army, March, 1905.

CREATION OF THE FIRST RURAL FORCE BY THE MILITARY GOVERNMENT—(AMERICAN).

PROPERLY speaking, the history of the Rural Guard is very short, since its existence as a regular organization of the State only dates from the 10th of April, 1901. It is not considered inopportune to present some facts which show not only its previous existence—although under another name, and with a different organization,—but also the necessity which has always been felt for a disciplined force, for the protection of the rural districts, and which at the same time might be a firm support to the Municipal authorities in the putting down of any disturbance in the towns or cities.

At the time of the American occupation of Cuba, January, 1899, the territory of our present Republic was divided into seven Military Departments:

1. Department of Havana.
2. Department of the Province of Havana.
3. Department of Pinar del Rio.
4. Department of Matanzas.
5. Department of Santa Clara.
6. Department of Puerto Principe.
7. Department of Santiago de Cuba.

One of the first acts of the American Military Government was to authorize each of the Department Commanders to organize his own force of rural guards, according to necessities of the territory under his command.

The duties of this force was to carry out police regulations and to preserve order in the rural districts and to aid the Municipal Police whenever it might be necessary.

The personnel of the Rural Guard when it was first organized, was the best that could be obtained at that time. Almost all the members had served in the Cuban army. All were required to have a thorough knowledge of the country and inhabitants of the district in which they were to serve.

The arms furnished were not, however, suitable for the service required of them, since the Remington Carbines with which the force was armed, had seen service in the last war for Independence, and were scarcely serviceable.

One year after this, on February 26, 1900, Civil Order No. 90, Headquarters Division of Cuba, was issued, organizing the then existing Rural Guard into companies with the following personnel for each company:

1	Captain, with monthly pay of....	$ 125.00
1	First Lieutenant, monthly pay of...	85.00
1	Second Lieutenant, " " " ...	75.00
1	First Sergeant, " " " ...	55.00
7	Sergeants, each, " " " ...	50.00
8	Corporals, each, " " " ...	45.00
59	Guards or Privates " " ...	40.00 in cavalry.
		30.00 in infantry.

The members of the Guard were required to furnish their own mounts and to provide themselves with food and uniform. The Government furnished arms, ammunition and equipment, including horse equipments.

Undoubtedly the organization of the Rural Force was not at that time entirely satisfactory to the Military Government as on February 16, 1901, a Board of Officers, Captain H. J. Slocum, U. S. A., President, was ordered to investigate and recommend a plan for the reorganization of the force, under a chief, to be called the "Rural Guard of the Island of Cuba," and to formulate regulations for the government of the new body.

As a result of the report submitted by the Board, the Rural Guard was reorganized under Civil Order No. 114, 1901, and subsequent orders modifying it.

Since April 10, 1901, the Rural Guard has existed as an organized force of the Government, and each day the country has been able to appreciate more and more the important mission that had been confided to it as the only sustainer of tranquility and order in the extensive rural districts and as a firm support of the civil authorities for the protection of life and property, and for the repression of public disorders too serious for the municipal police to deal with.

The organization given to the Rural Guard by Civil Order No. 114, was as follows:

Headquarters of the Guard at Havana, with a Chief and 4 Staff Officers.

Provincial Headquarters as follows:

1. Provinces of Havana and Pinar del Rio; 290 officers and men.
2. Provinces of Matanzas and Santa Clara; 415 officers and men.
3. Province of Puerto Principe; 252 officers and men.
4. Province of Santiago de Cuba; 402 officers and men.

The entire force consisted of:

1	Brigadier General, Chief,	monthly salary.	$416.66
1	Colonel, Inspector General,	" "	291.66
5	Lieutenant Colonels, line and staff,	" "	250.00
5	Majors, line and staff,	" "	200.00
4	Captains, staff,	" "	150.00
15	Captains, line,	" "	125.00
16	First Lieutenants, line and staff,	" "	100.00
15	Second Lieutenants, line,	" "	85.00
1302	Enlisted men, line, monthly salary.....	$42.00 to	$57.00

The enlisted men were obliged to furnish mounts and horse equipments, uniform, machete, subsistence and forage. The only thing furnished by the Government was the Carbine, cartridge belt and ammunition. The sergeants were furnished with the Colt's revolver, calibre .38.

During this year 240 enlisted men were added to the force.

The offices of inspector-general and adjutant-general were also consolidated under one officer with the rank of colonel.

THE RURAL GUARD UNDER THE REPUBLIC OF CUBA.

On May 20, 1902, when the republic was established, the Rural Guard consisted of 1,604 officers and men, and it remained at this figure until April 18, 1903, when the law of October 18, 1902, went into effect as modified by the later law of March 12, 1903.

The charges made were radical and the reorganization was not entirely effected until August 1, 1903.

The organization of the guard under the above laws was as follows:

One headquarters, with 8 officers.
Three regiments, each with 52 officers and 952 men.
The regiments were designated the 1st, 2nd and 3rd.
Each regiment consisted of 8 troops and 2 companies.
Each troop consisted of 4 officers and 95 men.
Each company consisted of 4 officers and 94 men.
Each regiment had 4 regimental non-commissioned officers.

Total:	Officers	164
	Men	2,856
Aggregate		3,020

The officers' monthly salaries ran from $333.33 for the chief to $90 for the sub-lieutenants.

The monthly pay of the enlisted men ran from $70 for a sergeant major to $21 for a private of infantry.

The reorganization, and the recruiting for the increase in enlisted men, which was commenced on May 8, 1903, in the capital of each province, progressed only slowly. The recruiting was then carried to other large towns outside of the capitals and the reorganization and recruiting was finished August 1, 1903.

THE FISCAL YEAR 1904.

Personnel and Posts.

On July 1, 1903, the Rural Guard consisted of 62 officers and 1,542 enlisted men, organized by the Military Government, increased by 14 officers named by the Presidential Decree of April 11, 1903.

At this time there were 215 posts or sub-posts occupied as follows:

By the first Regiment	44
By the second Regiment	71
By the third Regiment	100
Total	215

This was six posts less than the number occupied in April, 1902. The decrease was made not for lack of men, but on account of the impossibility of renting suitable quarters in place of those which it was found necessary to give up for various causes. The principal of these causes being the bad hygienic state of quarters, the lack of care and attention of the landlords; the demand in many cases for excessive rents for houses, which had been previously given free to the Guard; and, because, the greater number of the posts had been reinforced, as it was considered that each post should at least have one non-commissioned officer and six privates, in order that duty might be properly performed and the discipline properly maintained.

It is certain that there is a considerable number of posts with less than six guards; but it has not been possible to abolish them, as they were absolutely necessary, nor will it be possible to increase the number until the force is increased to such an extent that a redistribution may be made.

Notwithstanding the difficulties cited and the lack of funds for the renting of buildings or even for the repairs of the houses; notwithstanding the fact that, at present, rents are paid for a great number of houses that were formerly furnished the Guard gratis, and also that in many cases it is impossible to establish posts of true strategical importance for lack, not only of funds to pay rent, but also of suitable houses that can be rented; conquering all obstacles, even those which the lack of adequate means of communication cause, the Rural Guard maintained on December 31, 1903, 244 posts and sub-posts, or 29 more than the number on July 1, 1903.

During the six months ended June 30, 1904, it has been possible to establish 74 posts and sub-posts, making the total number 318.

QUARTERS FOR THE GUARD.

Three hundred and twenty houses are used as quarters by the Guard; 66 are owned by the Government, 98 are rented gratis and 156 are rented at a total monthly rent of $2,283.42.

In addition to the quarters referred to above, Castillo de la Punta, Havana, is used as headquarters of the Guard. Although this building is very old, it is well adapted to the purpose for which it is used. The Military Government, and later the Republic, made improvements and repairs to the amount of about $5,000 in all. The repairs were only temporary and leave much to be desired in the interior arrangements to make the building suitable for the present organization of the Guard and the many duties required of it.

Among other improvements, Castillo de la Punta needs at present a store-house for the supplies of the Guard; an enlargement of the dormitories for the orderlies and the construction of stables. There is room enough for all these and the cost of remodeling would certainly be very moderate.

STATIONS OF THE GUARD, JUNE 30, 1904.

Headquarters of the Guard.....Havana.
Headquarters 1st Regiment.....Camp Columbia.

STATIONS OF THE GUARD, JUNE 30, 1904.

Headquarters of the Guard, Havana.
Headquarters 1st Regiment, Camp Columbia.
Headquarters 1st Comandancia, Camp Columbia.
Headquarters 2nd Comandancia, Guanabacoa.
Headquarters 3rd Comandancia, Guanjay.
Headquarters 4th Comandancia, Pinar del Rio.
Headquarters 2nd Regiment, Matanzas.
Headquarters 1st Comandancia, Matanzas.
Headquarters 2nd Comandancia, Santa Clara.
Headquarters 3rd Comandancia, Cienfuegos.
Headquarters 4th Comandancia, Colon.
Headquarters 3rd Regiment, Santiago de Cuba.
Headquarters 1st Comandancia, Santiago de Cuba.
Headquarters 2nd Comandancia, Camaguey.
Headquarters 3rd Comandancia, Victoria de las Tunas.
Headquarters 4th Comandancia, Guantanamo.

DISCIPLINE.

Generally speaking the discipline is satisfactory in the Guard, and is growing better every day, notwithstanding the fact that the personnel of the last increase had to perform duty without complete preparation and instruction.

During the fiscal year of 1904, there were 162 trials by court-martial. As a result of the trials there were 55 dishonorable discharges; 2 discharges with honor; 75 were fined or punished in other manners, and 30 were acquitted. In addition to the above-mentioned discharges with honor, 11 were discharged without honor under the provisions of Article 51 of the Regulations of June 1, 1903. During the year 136 enlisted men were honorably discharged on account of physical disability.

MILITARY INSTRUCTION.

Notwithstanding the adverse conditions which prevail for the perfect military instruction of the Guard on account of the limited number of men available for duties of a varied nature, military instruction has progressed slowly, but satisfactorily. In order to obviate this difficulty, a persistent endeavor has been made to keep a small detachment at each regimental headquarters, in order that the members of the detachments might receive necessary instruction, and then be relieved by others for the purpose of receiving like instruction.

DUTIES.

Many and diverse were the duties performed by the Guard during the fiscal year of 1904.

Besides the duties imposed upon the Guard by the law of October 18, 1902, the Guard has had many other duties to perform, such as those of the garrison, municipal police, judicial police, the escorting of trains, the guarding of camps and fortifications, guards in public buildings, treasuries and offices, guarding the coasts, prisons and jails.

During the year 4,929 arrests were made. In addition to the arrests, the following services were performed:

Prisoners conducted	1,684
Judicial citations	9,310
Assistance to the authorities	1,103
Aid to private parties	959
Assisted at fires	163
Animals turned in to the authorities	199
Animals turned in to their owners	70
Miscellaneous	14
Total services performed	13,502
Total arrests	4,929
Grand total	18,431

MOUNTS.

When the laws of October 18 and August 1, 1903, went into effect the private horses of the members of the Guard were utilized as mounts.

After several advertisements for bids, which were all unsuccessful on account of lack of bidders, a contract was awarded for horses and mules at the uniform price of $72.

Two thousand four hundred and forty-nine horses and 60 mules were accepted and delivered between December 15, 1903, and May 15, 1904.

Considering the small price at which the horses were bought, the mounts are the best that could have been bought at the time the contract was entered into, although they are not what they should be for those charged with the protection of life and property.

It is also a fact that the animals were bought and received in the dry season, and unfortunately the exigencies of the service did not permit of leaving them in the pasture to become acclimated. Besides this and no less important was the fact that the allowance of forage was not sufficient for the proper subsistence of the animals.

In order that the mounts of the Guards may, under ordinary conditions, perform the work required of them, it will be necessary to increase the number so as to decrease the excessive work now performed by them, and to increase the allowance of forage.

QUARTERS.

It may be said in general that the conditions of the quarters, through causes that at present it is difficult if not impossible to remedy, leaves much to be desired. This is due in a great measure to the fact that the great majority of the detachments are stationed in the rural districts, in which it is extremely difficult to obtain suitable houses.

Another cause that contributes to the scarcity of quarters is the circumstance that as the towns gradually take charge of civil affairs that were formerly administered by the Government, the town authorities now demand rent for the buildings which they had formerly given free to the Guard, and also require the Government to pay for the repairs, also formerly paid for by the towns.

Besides, before the law of October, 1902, went into effect, the Guard had an allotment of money for minor repairs in Government and municipal buildings and in private buildings for which no rent was paid. Since August 1, 1903, these conditions, favorable for the Government, have ceased to exist, since the Guard can no longer count upon the before-mentioned allotment, and it is no longer possible to make these repairs, neither do the towns nor private parties care to undertake them.

For the above reason, it is a common thing to have to decline buildings provided free for the Government, which had been built or arranged expressly for the purpose, and to have to hire buildings

in all ways inferior and incomparable with the ones which it had been necessary to abandon.

PROPERTY.

The property return shows 429 headings of unexpendable property and 216 headings of expendable.

RECEIPTS AND EXPENDITURES.

Total expenditures during fiscal year 1904	$1,828,536.26
Cost of each member of the Guard (officers and enlisted men) for the fiscal year 1904	605.52
Monthly cost	50.46
True cost after deducting cost of organization for each member of the Guard for the fiscal year 1904	525.42
Monthly cost	43.79

A few of the principal expenditures were approximately as follows:

Pay	$918,000.00
Horses	176,000.00
Rations	279,000.00
Forage	134,000.00
Uniforms, etc	126,000.00
Office supplies	18,000.00
Rent, lights, etc	26,000.00
Horse equipments, etc	50,000.00

NEW ARM.

The law of October, 1902, appropriated money for new arms at the rate of $15 for each carbine and $17 for each rifle; but it has been impossible to obtain these arms up to the present time, as the report of the board appointed to make recommendations as to kind and model of new arm, has not yet been approved by higher authority.

Estimates for one fiscal year:

Pay	$1,031,500.00
Rations	312,732.00
Forage	201,280.00
Clothing	139,398.00
Miscellaneous	69,246.00
Total	$1,754,156.00

COST OF ORGANIZATION.

The cost of organization was $333,854.00.

CLOTHING.

The estimated cost of clothing for one man for one year is as follows:

CAVALRY.

4 uniforms at $6.50	$26.00
1 cape	10.00
2 leggins at $2	4.00
2 hats at $1.50	3.00
3 shoes, pair, at $2	6.00
Ornaments, brushes, etc	1.50
Total	$50.50

INFANTRY.

4 uniforms at $6.50	$26.00
1 cape	6.00
2 leggins at $2	4.00
2 hats at $1.50	3.00
4 shoes, pair, at $2	8.00
Ornaments, brushes, etc	1.50
Total	$48.50

ESTIMATED COST OF FORAGE.

The estimated cost of forage for one horse for one month is $6.67, or for one year $80.

PAY OF OFFICERS AND MEN.

Brigadier General, Chief	$333.33	per mo.
Colonel	275.00	" "
Lieutenant-Colonel	225.00	" "
Major	175.00	" "
Captain	125.00	" "
Lieutenant	100.00	" "
Sub-Lieutenant	90.00	" "
Sergeant Major (Regimental)	70.00	" "
Sergeant (Cavalry)	32.00	" "
Sergeant (Infantry)	30.00	" "
Corporal, Regiment, Cavalry and Infantry	25.00	" "
Trumpet, Blacksmith and Private of Cavalry	23.00	" "
Musician and Private of Infantry	21.00	" "

BENEFICIARY FUND.

This fund created under Article 259 of the Regulations was made for the aid and benefit of the members of the Guard who might become sick or incapacitated in the service, and also when possible, for the funeral expenses of those who might die while members of the Guard.

The receipts accruing to this fund come from fines imposed upon the members in the way of punishments.

Until February 16, 1902, the paymasters paid and charged to the fund all the expenses of the members while they were in hospital, including medicines and professional services; but after this date, by order of the Military Government, members of the Board requiring hospital treatment, were sent to the public hospitals, into which they were admitted at 50 cents per day. The fund paid 25 cents and the patient paid the remainder, 25 cents.

Afterwards, on November 10, 1903, by reason of the change in the organization of the Guard, and under orders from higher authority, it was directed that when members were in hospital, the fund should be credited with price of the rations not used by the patient, and the fund should pay the entire expense incurred in the hospital, which was at this time reduced to 30 cents per day by higher authority.

By this arrangement the sick member receives, without expense, medical treatment which costs the Government nothing.

The following shows the state of the fund at the beginning and close of the year:

July 1, 1903, on hand	$ 4,063.77
June 30, 1904, receipts during year	10,606.18
Total	$14,669.95
June 30, 1904, expended during year	$ 6,983.14
June 30, 1904, remaining on hand	7,686.81
Total	$14,669.95
Increase of fund during the year	$ 3,623.04

It only remains to be added in regard to the deficiencies pointed out in this memoir, that the prospects are bright for an early increase in the strength of the Guard, and that some of the causes which make the service difficult, will soon disappear, since proper suggestions have been made to the proper authorities and unsolicited promises have

been given that at the next session of Congress, legislation will be enacted giving the Guard everything necessary for its successful operation.

(Signed) ALEJANDIO RODRIGUEZ,
Brigadier-General,
Chief.

ORDERS OF THE MILITARY GOVERNMENT AFFECTING THE RURAL GUARD

Civil Order No. 90, 1900, Division of Cuba, organizing the Guard.

Civil Order No. 114, 1901, publishing the Regulations of the Rural Guard.

No. 106, 1901, Department of Cuba, appointing officers.

No. 108, 1901, transferring a company of Rural Guard to the City Police, etc.

No. 138, 1901, creating the office of Major and Quartermaster and appointing an officer to the position.

L.....A.....W
of
October 18, 1902.

CHAPTER I.

Article I.—The Rural Guard is a corps with military organization, whose duties will be civil and which has for its object police duty and the preservation of public order, principally in the rural districts, for which objects it will be distributed in posts and detachments.

Article II.—The Guard shall consist of 3,008 members, organized as follows: Headquarters and three regiments, each regiment shall consist of eight troops of cavalry and two companies of infantry.

Article III.—The Headquarters shall consist of one brigadier-general, chief; one lieutenant-colonel, quartermaster; one major in charge of office; one captain, auditor; one captain, aide; three sub-lieutenants, assistants in office.

Article IV.—The Headquarters of each regiment shall consist of one colonel, one lieutenant-colonel, one major, quartermaster; one captain in charge of office; one captain, surgeon; one lieutenant, paymaster, one lieutenant veterinarian, one sub-lieutenant, aide; two sergeant-majors, one corporal, chief trumpeter; and one corporal, armorer.

Article V.—Each troop of cavalry shall consist of one captain, two lieutenants, one sub-lieutenant, quartermaster; four sergeants, eight corporals, two trumpeters, one blacksmith, and eighty privates.

Article VI.—Each company of infantry shall consist of one captain, two lieutenants, one sub-lieutenant, quartermaster, four sergeants, eight corporals, two musicians, and eighty privates.

* * * * * *

Approved October 18, 1902.

L.....A.....W

of

March 12, 1903.

Article I.—The Headquarters of each regiment of the Rural Guard shall be increased by one lieutenant-colonel, as inspector of the same, and by two majors for the command of the forces.

Article II.—In like manner three more offices of the surgeon are created in the professional personnel of the Rural Guard, in order that one may be available for service in each province.

* * * * * *

Approved March 12, 1903.

A CONGRESSIONAL INTRUSION.

MUCH has been heard of late concerning alleged encroachments of the executive upon the legislative branch of the Government. Quite recently the Senate amended with lethal effect the arbitration treaties that had been negotiated by the State Department in the apprehension that their terms jeopardized the participation of that body in the treaty-making power. It may be in order to direct attention to an instance tending to show that Congress is scarcely in a position to cast the first stone.

If one were asked whether it is competent for Congress to enact that a certain individual, identified by a strawberry mark on his left arm or by measurements according to the Bertillon system, shall be a major-general of the United States Army, it is to be presumed that the answer would be in the negative. Yet that is what Congress has done, in substance and effect; for it surely cannot be regarded as material that the identification is effected by a reference to the position of the beneficiary in the service instead of physical marks.

The act of April 22, 1904, consolidates the Adjutant-General's Office and the Record and Pension Office. It then proceeds as follows:

"That of the officers consolidated as hereinbefore provided, the senior in rank, who shall be chief of the consolidated department, and whose title is hereby changed to that of The Military Secretary, shall hereafter have the rank of major-general."

There is a further provision that when the office becomes vacant, the chief of the Department shall have the rank of brigadier-general.

It will be convenient to have before us the provision of the Constitution respecting appointments as follows: "The President * * shall nominate, and, by and with the advice and consent of the Senate, appoint ambassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law; but the Congress may by

law vest the appointment of such inferior officers as they may think proper in the President alone, in the courts of law, or in the heads of departments." The power of Congress to "make rules for the government and regulation of the land and naval forces," and to "make all laws which shall be necessary and proper for carrying into execution the foregoing powers and all other powers vested by this constitution in the Government of the United States or in any department or office thereof" may be mentioned in passing for any relevancy that they can be claimed to possess.

It is to be admitted *in limine* that the action of Congress referred to is not without precedents or cases plausibly analogous. One of these is the act of 1878 placing Dr. Hammond on the retired list, and another is the act of 1885 by which the President was authorized to nominate, and, by and with the advice and consent of the Senate, to appoint Ulysses S. Grant a General on the retired list of the army, with the rank and full pay of General of the army. Observe that in both of these cases the President was "authorized"; the language was not mandatory; it left him free to make the appointment or not as he saw fit. But notwithstanding this, the action of Congress is obnoxious to a criticism expressed by Hon. Benjamin H. Brewster, which we shall presently quote. In the case of the Military Secretary, the President was not indulged in the exercise of any discretion whatever.

In 1884 Congress passed a bill to restore Fitz-John Porter to the army. It was of this measure that Attorney-General Brewster wrote an opinion from which the following is an extract:

"Regarding the bill as imposing or attempting to impose upon the President a duty to appoint the person designated therein, it is without any support in the Constitution. It is an assumption of an implied power which is not based upon any express power, and clearly invades the constitutional rights of the President. Congress has no right to enact as a law that which will be ineffectual. It cannot enact advice or counsel. It must make laws that are rules of action, not expressions of will that may or may not be followed. Counsel is a matter of persuasion, law is matter of injunction; counsel acts upon the willing, law upon the unwilling also (1 Blackstone Commentaries, 44). If, then, this bill be an injunction commanding the President to appoint, it is an usurpation, and if it be only counsel, it is without the essential element of law, and Congress can enact nothing but that which is to have the full vigor and effect of law. But again, the bill is subject to objection upon

the ground that Congress thereby in effect creates an office only upon condition that it is to be filled by a particular individual named. If this principle were adopted generally in the creation of offices, it would obviously result in constraining the appointing power to accept the condition imposed and fill the offices with the individuals designated by Congress, thus frustrating the design of the Constitution, which is that officers must be alone selected according to the judgment and will of the person and body in whom the powers of nomination, advice and consent, and appointment are vested."

President Arthur vetoed the bill, and in the message conveying his objections expressed himself as follows:

"It is apparent that should this bill become a law it will create a new office, which can be filled by the appointment of the particular individual whom it specifies, and cannot be filled otherwise; or it may be said with perhaps greater precision of statement that it will create a new office upon condition that the particular person designated shall be chosen to fill it. Such an act, as it seems to me, is either unnecessary and ineffective, or it involves an encroachment by the legislative branch of the government upon the authority of the Executive. As the Congress has no power under the Constitution to nominate or appoint an officer, and cannot lawfully impose upon the President the duty of nominating or appointing to office any particular individual of its own selection, this bill, if it can fairly be construed as requiring the president to make the nomination, and, by and with the advice and consent of the Senate, the appointment which it authorizes, is in manifest violation of the Constitution. If such be not its just interpretation it must be regarded as a mere enactment of advice and counsel, which lacks in the very nature of things the force of positive law, and can serve no useful purpose upon the statute books."

Hon. William E. Chandler, who was Secretary of the Navy in President Arthur's Cabinet, contributed to the United Service Magazine of February, 1886, a notably exhaustive and convincing discussion of the questions involved in the Fitz-John Porter bill, and in the course of it said that "the duty of a President, as a part of the law-making power, to prevent legislative usurpations of his own appointing power, is as clear as his obligation to resist congressional encroachments upon the courts. He should veto any bill for the appointment to federal office of a particular individual named therein." It is deserving of mention that the provision creating the

office of Military Secretary was inserted in the appropriation bill for the support of the army, and whatever his disposition may have been, President Roosevelt could not have vetoed it without consequences of infinite embarrassment to the Government and hardship to every soldier of our military establishment. So it is that one vicious practice lends its brotherly aid to another, and they clasp hands and go merrily on.

It may be contended that the action of Congress in the case of which we are speaking finds support in the decision of the Court of Claims in Wood v. United States (15 Ct. Cl. Rep. 151). Gen. Wood had been retired under a law that gave him the rank of major-general. Later Congress passed an act the effect of which was to reduce his rank on the retired list to that of brigadier-general. This was challenged; and the court affirmed its validity.

That is what the court actually decided; and in doing so it did not fail to say that "Congress cannot appoint him (an officer of the army) to a new and different office because," reciting the provision of the Constitution. But the opinion contains some language on which the act of April 22, 1904, may be speciously defended. Thus:

"Rank is often used to express something different from office. It then becomes a designation, title of honor, dignity, or distinction conferred upon an officer in order to fix his relative position with reference to other officers in matters of privilege, precedence, and sometimes of command, or by which to determine his pay and emoluments."

It then gives a number of illustrations; for example, the provision then found in the statutes that there shall be five inspectors-general with the rank of colonel of cavalry, and another that the General of the army may select six aids, who shall have, while serving on his staff, the rank of colonel of cavalry. It holds that the new rank thus conferred is not a new office. It is to be observed here that the provisions above mentioned were self-executing; that is, that they called for nothing to be done by the President to effectuate or evidence the action of Congress.

Now, in the light of the above excerpt and illustrations, let us state the substance and effect of the law relating to the Military Secretary in the form most favorable to its competency: Congress imposed upon an officer of the army, having then the rank of brigadier-general, certain new and additional duties, and with them gave him a new designation and a higher rank.

Stated in this form, the case seems to come within the principle expressed and illustrated by the Court of Claims. If this is correct, then the officer designated became a major-general and Military Secretary immediately upon the approval of the act; but such was not the administrative construction. On the contrary, the President nominated the officer identified in the act to the Senate, and upon his confirmation, issued to him a commission as Military Secretary and Major-General of the United States Army.

The true view is that the act created a new office, the office of a major-general on the active list in addition to the number previously authorized by law, and then provided what particular individual should fill the office so created. Therein it was a manifest intrusion upon the appointing power of the President.

An analogy in the civil service is supplied by recent legislation. The Fifty-seventh Congress created the Department of Commerce and Labor by the consolidation of certain bureaus then belonging to the Department of the Treasury and the Department of the Interior. Suppose that it had thereupon proceeded to enact as follows: That of the officers consolidated as hereinbefore provided, the senior in service, who shall be chief of the consolidated department and whose title is hereby changed to that of Secretary of Commerce and Labor, shall hereafter have the rank of the head of an executive department!

Presumably no one will be found to maintain that such a provision would have been constitutional. Is there, then, any mighty magic in the power of Congress "to make rules for the government and regulation of the land and naval forces" which authorizes it to enact like legislation respecting an officer of the army? The answer is that, both in the military and civil service, the power to appoint is an executive function to the exclusion of the legislative branch of the government except in so far as the Senate participates by granting or withholding its advice and consent.

In State ex rel. Yancey v. Hyde (121 Ind. Rep. 20), the Supreme Court of Indiana enunciated a principle which opens an interesting field of speculation in connection with the act to which the above comments are addressed. The Legislature had passed a law creating the office of inspector of mineral oils and providing that it should be filled by an appointment to be made by the director of the department of geology. The court held that the office became vacant on the instant of its creation; that the power to fill the vacancy was vested in the Governor; that the Legislature could not

exercise it or delegate it, and that the Governor could make the appointment notwithstanding the provision in the law which assumed to confer that authority upon another. Applying this principle to the case of the Military Secretary, it would appear that the President could have ignored the designation in the act of the person who should fill the office, and appointed anyone whom he chose. It is to be surmised, however, that such action would have antagonized the decision of the Supreme Court of the United States in the income tax case as to interdependent provisions some of which are constitutional and others unconstitutional.

In conclusion let us attempt to state how far Congress may qualify or regulate the appointing power of the President:

It may prescribe what rank shall attach to a certain position or to the performance of certain duties.

It may establish a system for the regulation of promotions, as by seniority in the arm of the service in which the vacancy occurs, even though the practical effect of such a system be to limit the appointment to a single person.

It may fix an age limit.

It may require that appointees shall possess certain technical qualifications or professional experience, as in the case of assistant attorneys-general who must be "learned in the law," and in the case of surgeons in the army and navy.

It may otherwise limit the selection to prescribed classes of individuals.

Some of these propositions draw dangerously near to the dividing line; certainly they could not all be reconciled with the view of President Monroe that "as a general principle Congress have no right under the Constitution to impose any restraint by law on the power granted to the President so as to prevent his making a free selection of proper persons for these offices from the whole body of his fellow citizens." But the powers recited have been exercised by Congress in many instances without challenge, and it may be said that they have been grafted on the Constitution. It is to be observed, however, that no one of the above propositions goes so far as to authorize Congress to create a new office and designate the individual or officer who shall fill it by such a description, in whatever form expressed, as to limit the appointment to a single person.

It is elementary learning that selection is of the essence of appointment. The power "to appoint" is not satisfied by a power to

give effect to, or to evidence by the signing of a commission, a selection made by another.

In the particular case here referred to there is nothing to be done or undone. The President approved the bill and made the appointment that its terms specified; so an estimable and capable gentleman who was a department clerk not many years ago is a soldier by act of Congress with the rank, pay, and emoluments of a major-general of the regular establishment. In furtherance of a purpose to rereward gallant and meritorious services behind the imminent, deadly desk, it is supposedly of little moment that it was done at the expense of a manifest violation of the Constitution and a flagrant disregard of the logical and fundamental division of the functions of government. But it is to be desired that such instances be not multiplied.

ALEX. C. BOTKIN.

STRATEGY AND TACTICS OF THE RUSSO-JAPANESE WAR.

ELEVENTH PAPER.

(July 30—Nov. 16, 1904).

THE SIEGE OF PORT ARTHUR.

(July 30—Nov. 25, 1904).

THE attack on Port Arthur virtually began with the opening of the war, when, on February 8, 1904, Admiral Togo attacked the Russian ships in the roadstead; but the siege proper did not begin until the end of May, when all communication by land, between the garrison of Port Arthur and the Russian army of Manchuria was practically cut off.

PRELIMINARY OPERATIONS.

(July 30—August 7, 1904).

A brief review of the Japanese operations to secure advantageous positions and to close in on the Russian lines, preliminary to actual siege operations, will serve to aid the reader in comprehending the more important events of this grand example of the attack and defense of the land fortifications of a seacoast fort.

The Japanese line, on first closing in, extended from Lungwangtang, at the eastern side of the Bay of Takhe, northwestward across the Peninsula. During the month of July the Japanese had taken the intrenched villages of Rinjan, Dodosho and Rynjubo, in the northwest, east of the peninsula between Louisa Bay and Pigeon Bay, about six or seven miles from Port Arthur, and at the end of the month the Wolf Hills, north of Port Arthur, were taken.

At the end of July, therefore, the Japanese lines extended in an irregular curve, resting in the east on the shore near Lungwangtang, on the Bay of Takhe, and extending across the Wolf Hills (about six miles north of Port Arthur), toward Louisa Bay. The first division constituted the right wing, the 11th the left, and the 9th the center.

The Russian line was from six to ten miles from the Japanese. At the center the Russians had already retired to the outworks of the main line of defense, but on the southeast the line rested on the ad-

vanced position on the Takushan and Sakushan hills (about four or five miles east of Port Arthur), while the left wing stretched over the chain of heights northwestward toward Louisa Bay.

At the end of July the first 4.7-inch siege guns arrived from Dalny and were placed on the Wolf Hills.

CAPTURE OF TAKUSHAN AND SAKUSHAN HEIGHTS.

(August 7-10, 1904).

By August 7th a sufficient number of siege and field guns had been placed in position on Wolf Hills to commence operations, meanwhile, in the east, or southeast, at about the same time, three batteries of 4.7-inch ships' guns and four batteries of 3.5-inch howitzers had been installed.

On August 7th the bombardment opened, the batteries on Wolf Hills firing on Port Arthur town and harbor, those to the east and southeast, in conjunction with the field artillery, on the Russian position on Takushan and Sakushan heights.

The Russian guns of the permanent forts in this vicinity took part in the action, but could not prevent the Japanese from silencing the Russian field guns in the advanced position on the heights. Consequently, in the night, the Japanese infantry columns were enabled to intrench themselves at the foot of the slopes of the heights.

On the following day the assault began, but the rain had made the slopes slippery, and the Russian gunboats, taking the attacking columns under fire, made their advance still more difficult. Little progress was consequently made on that day, but towards evening the Japanese nevertheless succeeding in taking Takushan (or Taihuzan) hill. Before Sakushan (or Shokuzan), however, the Japanese columns had to lie another night; but on the morning of August 9th this hill was also taken. The Russians attempted to dislodge the Japanese by a desperate counter attack, but failed.

In the attack on these two heights the Japanese lost 1,400 men.

The bombardment of Port Arthur harbor, no doubt, contributed to induce the fleet to make its attempt to escape on August 10, 1904.

STRENGTHENING THE JAPANESE POSITION.

(August 10-19, 1904).

The events of the siege up to the 10th of August constitute the first important epoch. On that day the Russian fleet at Port Arthur made its effort to escape, with a view to joining the Vladivostok

squadron, but was signally defeated. The Russian vessels, which had decided to turn back after the fight of August 10th, reached the roads of Port Arthur on the 12th.

Meanwhile, the Japanese land army continued to close in on the land defenses of Port Arthur, often suffering defeat, but in general making steady progress toward the end in view.

On August 11th, two Russian gunboats remaining at Port Arthur, had again opened fire on the Japanese troops near the shore, but were soon driven away by the Japanese gunboats in the vicinity.

On the 12th the Japanese renewed their attacks on the land forts, especially on the north and west fronts, but were everywhere repelled. They captured Takasakiyama hill (east of the northern part of Pigeon Bay), however, on the 12th, and on the 13th and 14th the two Japanese brigades in that vicinity took the Russian outlying positions.

But their further advance was prevented by the Russian search-lights lighting up the fore-ground and enabling the Russian batteries to concentrate a murderous fire on the Japanese troops struggling through the wire entanglements. Nevertheless, the Russians soon after abandoned these advanced positions.

Meanwhile, 20 more siege guns had arrived and were placed in the western part of the Wolf Hills.

On August 16th, Marshal Oyama, who had personally taken charge of the siege, called upon General Stroessel, commanding Port Arthur, to surrender the place under the following conditions:

Free exit for the garrison, with permission to join Kouropatkin's army; the surrender of the warships in the harbor; and the removal of the civil population to a place to be designated by the Japanese admiral.

General Stroessel was allowed twenty-four hours in which to decide, but he promptly declined the offer, and also rejected the proposal of the Japanese commander for a three days' truce.

The Commissioners in this transaction had met at a point just north of Shuishiying, a village about 3½ miles north from Port Arthur, lying south of Hoozan, or Phoenix Mountain, the center of General Nogi's position.

In consequence of the rejection of the proposals the Japanese attacks were resumed.

CAPTURE OF 174-METER HILL AND THE BANJUSAN FORTS.

(August 19-24, 1904).

Between the 19th and 23rd of August desperate struggles for the outlying Russian positions took place almost daily. These attacks

were directed mainly against the Russian northeast front, the object being to secure good preliminary positions for the infantry and the field guns of the besiegers.

The general plan of attack included a feint on the right flank of the Japanese line, while the main attack was to be directed against the center of the northeast front of the Russian defenses.

The outworks of this point consisted consisted of two field works called Banjusan, situated on the ridge of Kikwanchan (the surface of which slopes northeastward), the redoubt of Rojusan, farther west, on the slope of Erlungshan, and the redoubt of Lungyan (or Kouropatkin Battery), about 400 yards south of Shuishiying. Between the latter two, in the valley, lay a trapezoidal earthwork with a 23-foot ditch surrounding it. Southwest of Shuishiying the 174-meter hill and the mountain ridge beyond were also occupied by the Russians.

The Russian left wing retired before the attack of the Japanese right to its principal position. The Japanese on the west side attacked 174-meter hill, which was crowned by an earthwork, armed with two 4.7-inch guns, five field guns, and four machine guns, and surrounded by sand parapets, ditches and wire entanglements, and took it on August 24th, after a heavy bombardment. The Russians could not again dislodge them, although they poured in a heavy artillery fire from the neighboring forts.

On the northeast, the Japanese took the ditches in front of Rojusan Redoubt, below Erhungshan, on the 19th, and on the 20th the attacking columns passed south of Shuishiying to the trapezoidal field work in the valley, but were driven back. On the 22nd this eastern column succeeded, with heavy losses, in taking the two Banjusan forts on the Kikwanshan height, but could not gain a foothold on the crest. One battalion had followed the retiring Russians to the main fort and intrenched at its foot, but on the 24th was driven back again.

During the advance of the Japanese lines at this period the Russian warships occasionally aided the defense by firing on the Japanese troops within range near the shore. On August 18th, at 8 P. M., the Russian gunboat Otwashmi, out on such a mission, struck a mine near Liautishan and sank. On August 23rd the Sevastopol ran out to fire on the Japanese positions on land, but struck a mine on the way out, and was compelled to return to the harbor. The Nishin and Kasuga, however, fired on the works at Laulutsui (the extreme left of the Japanese lines) on that day.

On the night of the 24th, the Japanese right made a desperate

attack on 203-meter hill, to the west of Etseshan, and about three miles northeast of Port Arthur, but the attack failed, due to the concentrated fire of the Russians, the wire entanglements, and the effective use of searchlights and signal lights.

This entire undertaking cost the Japanese about 14,000 men. Moreover, the defense of 174-meter hill, which was very much exposed, involved a loss of about 100 men daily for a period of two weeks. The Banjusan redoubts (or Panlung fort), however, secured an advanced position in the center of the right front of the defense, which opened the way for the attack on the Russian defensive lines that finally led to the fall of the entire position.

PERIOD OF REPOSE.

(August 25 to September 19, 1904).

The heavy losses sustained in these actions induced the Japanese to institute a period of comparative inaction in order to strengthen their positions. The siege artillery was strengthened by the addition of six 5.9-inch ships' guns, and large reinforcements were sent to the front, where the losses had been very great; the losses in battle since the capture of Nanshan had amounted to 20,000 men, while the sick were not less than 24,000.

On the 3rd of September another unsuccessful attack was made on 203-meter hill, but on the whole the Japanese limited themselves for a time to merely warding off the Russian attacks on the positions taken. The artillery, however, was constantly in action during this period.

At the end of August, Rear Admiral Wiren (who had previously commanded the Banyan) was placed in command of the Russian fleet at Port Arthur, relieving Rear Admiral Uchtomski, whose conduct in disobeying orders on August 10th, was undergoing investigation.

On August 31st, while seven Russian merchantmen were looking for mines at Port Arthur, one of them struck a mine and sank.

On September 2nd, in Takhe Bay, on the east coast, a Japanese torpedo boat struck a mine and sank, and on the same day the Itsukushima was damaged by a submarine mine.

On Sepember 11th, the Lena, a converted cruiser, which left Vladivostok at the time of the sortie of the Vladivostok squadron on August 10th, arrived in San Francisco, Cal., and was dismantled.

On September 18th the Japanese gunboat Heiyen struck a mine in Pigeon Bay and went down with nearly all on board.

CAPTURE OF ROJUSAN LUNETTE AND 180-METER HILL.

(September 19-24, 1904).

The strongest part of the Russian defensive line was in the vicinity of 203-meter hill, outside of which stood 180-meter hill, and beyond that 174-meter hill, the capture of which has already been described. The relative positions of these important points was as follows: One hundred and eighty-meter hill was about 400 yards east of 174-meter hill, and 203-meter hill about the same distance south of 180-meter hill, and about 600 yards southeast of 174-meter hill. The height designated as 203-meter hill was really composed of three hills, called respectively, in order from north to south, Akasaka, 203-meter and 210-meter.

On the 19th of September another general attack began, directed mainly against the northwestern part of the Russian defensive line, from Etseshan forts eastward to the Rojusan Lunette. The latter and the earthwork in the valley were stormed with the bayonet on the 20th, but the Russians had rendered the armament (eight field guns, two mortars and several machine guns) unserviceable. The loss of this position was very serious for the Russians, inasmuch as the pumping station for the waterworks was located outside of these forts, and therefore fell into the hands of the Japanese.

On the same day (20th) the Japanese on the western side stormed 180-meter hill (Namicoyama) and forced the Russians toward Etseshan, but the latter could not be taken, although several desperate efforts were made, and simultaneous attacks were directed against it from north, west and southwest. This work (Etseshan) was a large rectangular fort, armed with two heavy guns, three field pieces and three machine guns, and containing strong casemates, covered with thick steel plates, over which was a deep layer of earth. The foreground was entirely open, affording no cover to advancing columns.

Ishan fort, on 180-meter hill, had been vacated by the Russians, but the Japanese found it impossible to occupy it, since its interior was swept by the guns of the main fort (Etseshan). They, therefore, intrenched themselves just behind the crest of the height, in order to hold the position.

Between September 19th and 24th the Japanese losses amounted to 3,500 men.

THE REGULAR SIEGE OPERATIONS.

(September 25—November 16, 1904).

Another period of comparative inaction so far as attacks were

concerned followed, but energetic artillery and engineer work took their place.

On October 1st, six 11-inch howitzers, four of which had been placed on the Wolf Hills and two opposite the west front of the Russian defenses, were ready for action, and opened fire on the harbor.

Meanwhile, the regular siege operations had been commenced and carried on continually all along the line.

General Nogi's headquarters had been established at Shuishiying, about three miles north of Port Arthur.

On the Japanese left the primary parallel was run from the Kouropatkin Battery, just west of the railroad eastward, parallel to the northeast front of the Russian defensive line, following the valley of a small creek, to a point opposite Pamlung forts, the center of this northeast front; from this point the primary parallel turned southeastward, parallel to the eastern front of the Russian defenses, to a point opposite the main battery of East Keekwan fort (the Cocks Comb).

The 9th division ran approaches toward Panlung; the 11th division, on the extreme left, ran approaches (trenches and zigzags) toward the main battery of East Keekwan fort.

At the Japanese center approaches were run from Shuishiying in two directions, one toward Erlungshan, the other toward Etseshan. As the former approached the railroad the primary parallel was continued from the Kouropatkin Battery southward for about half a mile, then westward across the road running from Shuishiying to Port Arthur. The other approaches (run by the 1st division), after reaching this parallel, were turned westward toward 203-meter hill.

The second parallel, on the Japanese left, was (afterwards) laid close up to the Russian forts, extending from Shodzushan (Pine Tree Mountain), on the Shuishiying-Port Arthur road, southeastward and southward.

During the latter part of October the Japanese again made a series of furious attacks on the Russian lines. On October 11th and 12th they took two railroad bridges at the foot of the fortified heights near the center. On October 16th they succeeded in storming Hachimakiyama, between Erlungshan and Panlung forts, and in entrenching themselves there.

Meanwhile, the conditions in Port Arthur had become serious. Water and provisions were still plentiful, but the ammunition supply was running low, and projectiles with fuzes were rarely used. The ships of the squadron had been more or less damaged

by the Japanese fire, and only the Sevastopol and the torpedo boats remained serviceable. The other vessels were gradually dismantled, their armament being utilized in the land defenses.

On October 12th, nine of the torpedo boats steamed out to fire on the troops of the Japanese left flank, but were driven in again by Japanese destroyers. One of the latter, the Harusame struck on a mine and had to be taken to Dalny for repairs.

In the latter part of October, 1904, the Russian warships still at Port Arthur included the following:

Battleships: Retvizan, Pobieda, Peresviet, Poltava and Sevastopol.

Armored Cruiser: Bayan.

Protected Cruiser: Pallada.

Gunboats: Vsadnik, Giliak and Bobr.

Coast Defence Vessel: Otvashni.

Transport (or Hospital Ship): Angara.

Destroyers: Stroini, Silni, Smely, Serediti, Boiki, Bezshumi, Strosevoi, Ratsiachi, Rastoropny.

Meanwhile, the Japanese had sent all their damaged ships to home ports for repairs, so that they might be in serviceable condition on the arrival of the Russian Second Pacific Squadron, which had started from the Baltic for the seat of war. A portion of the fleet, mostly the older vessels, had been left to blockade Port Arthur. At the end of September, the small cruiser Otowa, sister ship of the Zushima, the last of the ships which Japan had building at the opening of the war, had been added to the fleet.

On October 26th, another general attack on the northeast front of the Russian defense at Port Arthur took place, and continued with intermissions for several days. The Japanese reached the glacis of the Russian forts at various points, and were able to lay out their second parallel on the counter-scarps of the ditches of the forts. Repeated efforts were made to destroy the caponniers in the ditches with dynamite, and to storm the forts, but all these efforts were fruitless and involved serious losses. The Japanese held the position gained, however, and the Russians were unable to dislodge them.

In these attacks Shoduzan (Pine Tree Fort), near the railroad, just west of Erlungshan, was taken by the Japanese, but was made untenable by either side, and remained so to the end.

These repeated assaults of the Japanese, up to October 30th, cost them about 7,000 men.

The regular siege approaches were again resumed, but as the hard and rocky soil made this work very difficult, the Japanese, on November 6th, made a third attempt to take 203-meter Hill in the west by storm, but without success.

On November 16th another general attack was made on the northeast front, which resulted in the capture of an outwork lying between Banjusan and Keekwan forts. The Russians regained possession of this work by a counter attack, but General Inouye was finally able to recover it again, and to hold it permanently.

On the same day on which the general attack of the Japanese opened (November 16th), the Russian torpedo boat Rastoropny broke through the blockade of Port Arthur and took despatches to Cheefu. The Chinese authorities there demanded that the ship be dismantled, and her Commander had promised to do so, but when two Japanese destroyers appeared in the harbor, he decided to blow her up.

COMMENTS.

The siege of Port Arthur is of particular interest to the military world, not only because it is an example of the attack and defense of land fortifications in which modern war material comes into play, but also because it illustrates the case of a strong sea-coast fort attacked on the *land* side, after the failure of repeated attacks by sea.

The fortifications of the land side of Port Arthur from an engineering point of view were, perhaps, the most elaborate and perfect in existence. The work of the Engineers was greatly aided, topographically, by the nature of the country. Two ranges of hills, almost concentric, surrounded the harbor, with their crests broken by a series of natural sites for forts, conical elevation, which the engineers utilized for the artificial forts. On the high points of the two concentric ranges permanent works were erected encircling the city, supplemented by semi-permanent and temporary works in the foreground, in the intervening spaces between the forts on the crests, and in the space between these two outer lines of defenses and the inner line, which was locatd at about one mile outside the city. The forts were well arranged for mutual support.

In the attacks on these defensive lines were used for the first time, on a large scale in actual war, the modern war material which science, during the last half century, has made available for the art of war, viz., siege artillery of great range, telescopic sights and range-finders, insuring great accuracy of fire, high explosive shells, smokeless powder, the searchlight, bombs for lighting up the foreground, machine

guns, the magazine rifle, the telegraph and the telephone, steel shields to protect skirmishers, barbed-wire entanglements, hand grenades in close action at the trenches, and many others.

The weak points of the defense, so far as it can be judged at this time, appear to have been three:

1. The outer defensive line was too close to the city and harbor to be protected, a mistake which was probably due to the smaller range of the artillery that would probably come into play, which was in use by the world's armies at the time the fortifications were first planned.

2. The failure to occupy Wolf Hills, a strong position within six miles of the city and harbor, a mistake which enabled the Japanese to secure commanding positions early in the siege, from which they were able to bombard both city and harbor.

3. The failure to provide the forts with a sufficient amount of ammunition to endure a long siege. The Russians should be judged leniently on this point, however, for it is doubtful if any other nation (before the experience of Port Arthur) would have made a more generous provision in this respect than did the Russians.

The fire of the Japanese batteries was systematic and precise. The field of fire was divided into sections, which were shelled in rotation, by night as well as by day. Heavy guns were mounted on the heights as fast as they were taken.

The siege and blockade were never so complete that the Russians could not communicate directly with the outside world and obtain some supplies, but they were sufficient to prevent the access of reinforcements and of supplies in large quantities.

The lessons of the siege are many and important. It is very difficult, however, to state them definitely at this early stage, before the full reports are available.

It is evident, however, that a wide and deep ditch is still an excellent obstacle in front of a fort. Wire entangles on the glacis or on any open ground in front, especially when lighted up at night by means of illuminating bombs or search-lights, also proved a very serious obstacle.

The method of running the approaches by the sap have undergone little change, but in difficult ground, where sapping is too slow, the use of a series of mines to form craters, which can be used as caves for starting new trenches or approaches, and which could be connected at night, proved very effective. Even the shells fired from the guns or howitzers often formed craters sufficient for this purpose.

THE CAMPAIGN IN MANCHURIA.

(September 3 to November 30, 1904).

The battle of Liauyang was an important victory for the Japanese, and gave them control of Southern Manchuria. Nevertheless, it was not a decisive action; their plan, namely, to surround the Russians and cut them off from their lines of retreat, had failed, and the decisive battle was consequently indefinitely postponed.

General Kouropatkin, in spite of his defeat, had succeeded in making a masterly retreat with the Russian army, and the Japanese were so exhausted by their attacks that they were unable to pursue with proper energy, and consequently gave the Russian army time to restore order and reorganize its forces.

Moreover, the season had so far advanced that it was too late to undertake any further operations on a large scale.

The Russian army, therefore, gained time, which it so much needed and desired, and Japan became concerned for the future of the campaign, and was disappointed in the results she expected from this battle.

The Second Pacific Squadron of the Russians, in consequence, acquired increased importance, and the necessity for promptly reducing Port Arthur and destroying the remaining ships of the Russian squadron there became imperative, *first,* because the besieging army was needed in the field army in Manchuria, *secondly,* because the Second Pacific Squadron, reinforced by the warships remaining at Port Arthur and Vladivostok, would have been superior to the Japanese fleet, and *thirdly,* because the fall of Port Arthur would prevent the Russian ships from finding a safe base in the Far East.

The Japanese had taken possession of Liao-Yang on September 4, 1904, and the army slowly followed the retreating Russians, the Japanese front covering about 25 miles, the armies retaining their original relative positions: Kuroki on the right, Nodzu at the center and Oku on the left. Reinforcements were constantly pushed to the front. On September 6, eight Japanese transports arrived at the port of Newchwang, and the troops landed from them immediately took train for Liao-Yang.

The main Japanese army crossed the Taitsi-Ho at Liao-Yang. Kuroki was in closer pursuit than the rest of the line, and was endeavoring to make an enveloping movement to cut the Russian line of communications on the railroad. This right flank under Kuroki was strengthened and extended north from the Yentai mines, reinforce-

ments for this purpose crossing the Taitsi-Ho to the west of Benskha (or Bensiku), about 25 miles northeast of Liao-Yang.

The Japanese army was about 250,000 strong, with about 850 guns.

The Russian army retreated towards Mukden, and on September 8, the main body reached that place and began taking up positions around the city, and over a line extending from Tie-Ling, or Tjelin (on the railroad, about 40 miles north of Mukden) to some distance south of Mukden. It was about 200,000 strong.

Heavy rains at this time interfered seriously with the operations of both armies.

The country on the east is very difficult and mountainous, on the west it is open and flat. Several small streams cross from east to west. The more southerly of these are branches of the Taitse-Ho, north of these is the Sha-ho (a branch of the Hun-ho) flowing from east to west and crossing the line of the railroad about 12 miles south of Mukden. Still farther north is the Hun-ho itself, flowing from northeast to southwest, passing about five miles south of Mukden; at this point its course is through a wide sandy plain. It is shallow in most places and readily fordable.

The Japanese continued their advance and pursuit, and Kuroki made constant efforts to envelope the Russian left. In order to divert the attention of the Russians from this turning movement, a portion of Oku's army, on the Japanese left, was directed toward Sin Ming Ting, or Sinmintin (about 30 miles northwest of Mukden).

Meanwhile, about the middle of the month, Kouropatkin, in order to gain an insight into the Japanese plan and movements, ordered a forced reconnaissance on a large scale, under Rennenkampf and Samsonoff, to penetrate the thick veil of outposts covering the Japanese front. This reconnaissance disclosed the fact that the Japanese were in considerable force in the vicinity of the Yentai mines (about 12 miles northeast of Liao-Yang), and were fortifying this position strongly.

Following this reconnaissance the Japanese made an attempt on Talin Pass, or Kantulin Pass (about 25 miles southeast of Mukden).

On September 17th, a sharp engagement took place at Ping-taitse southeast of Mukden), the Russians attacking in two columns, one from the Mukden high road, the other from Fushun, or Fushunchen (about 25 miles east of Mukden), on the right bank of the Hun-ho, and on the direct road to Tie-ling). The Russian attack was repelled.

REINFORCEMENTS.

The Russian army at this time received strong reinforcements.

During the month of September the I (European) Army Corps, under General Meyendorff, arrived at Mukden, and the VI Siberian Army Corps, under General Soboljoff, and the 4th Don Cossack division, were beginning to come in, their transportation being completed about the end of October. On September 30th the transportation of the VIII Army Corps, under General Myloff, began.

On September 26th, the railroad around Lake Baikal was put in operation, and the time required to transport an army corps (previously 40 days) was greatly reduced. The above-mentioned troops could, therefore, be concentrated in Manchuria, by the end of November. This second Manchurian army was to be commanded by General Gripenberg, a veteran of the Crimea and the Russo-Turkish war.

Another balloon establishment, one battalion strong, was ordered mobilized, to be attached to the Second Manchurian army.

The Japanese made Dalny their principal landing place for troops. In July they began to rebuild the railroad running north (which the Russians left them without sufficient rolling material), by laying a narrow gauge. The ends of the sleepers were also cut off so as to entirely prevent the use of this railroad by the Russians in case of a future reverse to the Japanese. By the beginning of August trains were running to Kaitchou, and on October 1 the first Japanese locomotive entered Liao-Yang.

Two auxiliary landing places were also used by the Japanese: in the west Yinkow (the port of Newchwang), whence troops and material were carried partially by train and partially by boat up the Liao and the Hun-ho; in the east the mouth of the Yalu, connected with a field railroad from Antung to Fengwangcheng and Liankwaushan. This road, over which the cars were pushed by ccoulis, was being extended northward at this time.

Meanwhile, the railroad from Saoul to Widshu was being constructed, as well as that from Fusan to Saoul, which latter was nearly completed at this time, and the old road had been changed to the narrower Japanese gauge. A branch line connected it with the excellent harbor of Masampo.

BATTLES ON THE SHA-HO.*

The month of September had thus been passed in the retreat of the Russians and the occupation of positions around Mukden, and in the slow pursuit by the Japanese, impeded by the difficult country and rendered cautious by the fact that the Russians had received considerable reinforcements.

*Called also Shakhe.

During the month of October a series of actions took place which, although involving great losses due to the obstinacy of both combatants, were in reality mere episodes of little effect on the general course of the campaign.

The theatre of operations was the country between the Taitsi-ho and the Sha-ho, very difficult in the eastern and central parts, but open in the western portion. The Sha-ho is a branch of the Liao, and runs from west to east across the railroad about 12 miles south of Mukden.

At the beginning of October the Japanese advanced posts had reached Feng-Tia-Pu, or Fent-sia-Pu (about 15 miles southeast of Mukden, on the headwaters of the most northerly branch of the Taitsi-ho). Kuroki, on the Japanese right, was attempting to gain the rear of the Russian left flank by the direct road to Tie-ling.

To cover his left, Kuropatkin concentrated a large force there, under General Stackelberg, and ordered an advance with a view to outflanking the advanced positions on the Japanese right, and rolling them up, while the rest of the army held the Japanese in their present positions.

The attack began on October 9th, when a Russian brigade and 2,000 cavalry, with 2 guns crossed the Taitsi-ho at a point about 40 miles east of Liao-Yang. This brigade at first cut the Japanese communications, between Sihoyen, 35 miles east of Liao-Yang, and Pensihu (or Bensihu), on the Taitsi-ho, 25 miles northeast of Liao-Yang, but this communication was soon restored.

Field Marshal Oyama, however, had been informed of the general Russian movement betimes, and withdrawing his right to a defensive position previously prepared, concentrated all available forces on his left, and while the Russian left with heavy losses threw themselves on the field fortifications prepared for their reception, the Japanese left (now the main body of Oyama's army) advanced against the weakened Russian right from the direction of Shiliho (on the railroad half way between Liao-Yang and Mukden) with such energy that the Russian left had great difficulty in keeping in touch with the right, being forced at first to retire northeastward and away from the center. The Russian center and right were gradually forced northward, and found no strong position until they had retired about 7 miles, when they reached the Shak-ho, a small stream, a branch of the Hun-ho, running nearly directly west, about 10 miles south of Mukden.

At this point a Russian brigade under General Putiloff succeeded, on October 16th, in retaking and holding a hill (called Putiloff Hill

from this event), which had already been in the possession of the Japanese. This hill commanded the approach from the south, and its occupation prevented the Japanese from advancing farther with their exhausted troops. The Russians, therefore, were enabled to make a stand here on the Shak-ho, and, resting it on this point of support, to intrench their line and to hold it against the Japanese attacks.

The Japanese also intrenched their lines, which were at only a few hundred yards from the Russians, the outposts in many places within hearing distance of each other. In this position, in underground quarters dug out of the soil, the two armies remained through the winter, which has an average temperature here, in December, of about 16° F., in January, of about 0° F.

Skirmishes took place from time to time along the entire line, and occasionally artillery bombardments, especially of Putiloff Hill. On the whole, however, the time was one of comparative inaction, and was utilized by both sides to prepare for the spring campaign.

The Russian army, at the beginning of these battles in October, was about 235,000 strong. In the ten days' battles on the Shak-ho it lost about 45,000 men and 43 guns.

The Japanese army, about 250,000 strong, lost 16,000 men and 14 guns.

The Russian army, after the battles on the Sha-ho, was reorganized. General Linevitch, a veteran of the Russo-Turkish war, was placed in command of the First Manchurian Army, composed of the I, II, III and IV Siberian Army Corps, and the X European Army Corps; General Gripenberg was placed in command of the Second Manchurian Army, composed of the rest of the troops in the theatre of operations; and General Baron Kaulbars was placed in command of the Third Manchurian Army, then being transported to the seat of war.

Rear Admiral Yessen replaced Vice Admiral Besobrasoff in command of the First Pacific Squadron.

CRUISER RAIDS.

At the beginning of July, 1904, the cruisers Smolensk and Petersburg, of the Volunteer Fleet, had been sent through the Dardanelles to the Red Sea to intercept vessels carrying contraband of war. After continuing this service during the month of July, these vessels were relieved by the auxiliary cruisers Don and Ural, sent out from Libau (in the Baltic Sea), at the beginning of August. The Ural took station in the Mediterranean, while the Don was posted off the west

coast of Africa. The Smolensk and Petersburg passed to the southeast coast of Africa, where they arrived about August 20. On the representation of England that these vessels had passed the Dardanelles freely because they were flying the mercantile flag, and were afterwards converted into cruisers, Russia had despatched orders to these ships to return home, but these orders had not reached them. Russia finally requested the British to hunt them up and deliver these orders to them. On the 6th of September the British cruiser Forte found them both at Zanzibar and informed them of their orders. On September 23d they reached the Suez Canal, and on the 30th were at Algiers.

THE SECOND PACIFIC SQUADRON.

The importance of regaining, if possible, the command of the sea in the Far East, induced Russia to begin the organization of a second Pacific Squadron as early as May, 1904, and the ships were to be ready for sea on July 15, but did not sail until fall.

The squadron as finally organized, under the command of Rear-Admiral Rodjestvensky, was constituted as follows:

First Battleship Division (Admiral Rodjestvensky).—Battleships Kniaz Suvaroff (flag), Borodino, Imperator Alexander III, Orel.

Second Battleship Division (Admiral Folkersam).—Battleships Sissoi-Veliky (flag), Oshibya, Navarimo; armored cruiser Admiral Nokhimoff.

First Cruiser Division (Rear Admiral Enquest).—Second-class cruisers Aurora (flag), Dimitri Donskoi, Olez.

Second Cruiser Division.—Third class: Almaz (flag), Svietlana, Jemtchug, Izumrud.

Torpedo Flotilla.—Cruiser Korea. Destroyers, 1st Division: Bravy, Bezovspretchny, Blestjatshtshy. Cruiser Kitai, Bodry, Bedovy, Bjestry, Boing.

Auxiliary Vessels.—Cruisers Ural, Don, Volga, Orel (hospital ship), Kamtchatka (repair ship), Colliers.

The squadron left Liban, in the Baltic Sea, on October 14th, Oleg and Izumrud, with five torpedo boats, remaining behind to complete their equipment. The remainder of the vessels, by divisions, steamed to the southern entrance to the Langeland Belt (the channel between the islands of Denmark north of Kiel Bay), where they coaled, and after remaining two days, passed through the Belt northwards, preceded by two steamers carrying a drag chain between them for picking up mines. In Aalbeck Bay (at the northern end of Denmark)

they coaled again, and left on October 20th, steaming by divisions for the Channel.

The separate divisions, followed each other at short intervals, but independently, across the North Sea. The Second Cruiser Division (to which the repair ship Kamtchatka had been attached) was leading. On the night of October 21st, the repair ship became separated from the two cruisers; and four of the torpedo boats (which should have formed part of the *point*) had also lost their places.

At about 8.30 P. M., October 21, 1904, the flagship (which, with the First Division of Battleships, and the Anadyr, formed the original rear of the column) received a wireless message from the Kamtchatka (then astern) to the effect that four torpedo boats had passed by her, and were fired on: two were driven back by the fire and two escaped. The squadron commander ordered the two leading cruisers (by wireless telegraph) either to await the arrival of the Kamtchatka, or to escape from the torpedo boats (reported astern) by increasing their speed.

Rear-Admiral Enquist, commanding the two cruisers, decided on the former alternative.

At 12.30 midnight the First Battleship Division passed the eastern end of a group of Hull fishing steamers, which the Second Battleship Division had passed through a short time before, farther to the westward, using the searchlights. The flagship of the First Battleship Division, or the escort ship Anadyr, sighted to port two dark shadows, which appeared to move at high speed: the officers concluded that these were the two torpedo boats which had escaped from the Kamtchatka, and opened fire on them from the bow guns. The men at the broadside guns, however, in the excitement, also opened fire on their own account, directing their guns on the fishermen. One of the fishing steamers was sunk and two men were killed and five wounded on four of the fishing vessels. The Aurora received five hits, one of which killed the chaplain on board.

On the following morning the Aurora and Kamtchatka were still at the point where the accident occurred, and the latter fired another shot at a fishing vessel. In the course of the 23rd of October the squadron entered the Channel, and reached Cherbourg about 9 P. M.

After coaling there, the ships proceeded on their course, reaching Tangier on November 3rd, part going direct, the First Battleship Division, however stopping at Vigo (on the west coast of Spain just north of the border of Portugal) for several days, several small cruisers entering the neighboring bays for coal.

After assembling at Tangier, the squadron was divided: Admiral Rodjestvensky took command of the First and one-half the Second (Oslyabia and Admiral Nakhimoff) Battleship Divisions, as well as the two large cruisers, and on November 6th started around the Cape of Good Hope; Rear Admiral Folkersam took command of the other vessels of the Second Battleship Division, as well as the smaller cruisers and the torpedo boats, and proceeded through the Mediterranean Sea.

Admiral Rodjestvensky remained at Dakar in Senegal (French) near Cape Verde, on the west coast of Africa, from the 12th to the 16th of November, and in Libreville on the Gabun River in French Congo, from the 28th of November to the 3rd of December, to coal. The cruise was utilized for exercises and maneuvers.

Admiral Folkersam, after taking in coal in Algiers and at Bizerta, arrived at Suda Bay (on the north side of the island of Crete, on the 9th and 10th of November, and remained there eleven days. He then proceeded to Port Said, where he arrived on November 24th.

The passage through the canal was comparatively rapid. The torpedo boats, leaving Port Said on November 25th in the morning, reached Suez at 4.30 P. M. the same day, while the larger ships arrived there on the afternoon of the 26th. The two armored ships were towed.

The Egyptian government directed the police to guard the Russian ships at their night anchorages, and had men mounted on camels patrolling the two shores of the canal to guard against attack.

On November 27th the ships left Suez and reached Djibuta (in the Gulf of Tajoora, outside the Strait of Bab-el-Mandeb, half way between Tajoora and Zehla) on December 2nd.

Meanwhile, on November 16th, the third section of the squadron began its cruise from Liban. It consisted of the following vessels:

Large cruiser, Oleg; small cruiser, Izumrud; auxiliary cruisers, Terek, Dnieper (formerly Petersburg), Rion (formerly Smolensk). Torpedo boats, Prousitelmy, Prosorlivy, Rasvy, Grosny, Gromky.

After remaining for a week in Fakkeberg and Skagen (on the northern end of Denmark), and after the torpedo boats had coaled at Cherbourg (France) and on the Spanish coast, the section steamed for Tangier, which was reached on December 6th, and there the transport Okean joined it. From Tangier the vessels steamed for Port Said.

The vessels sustained several accidents on the way. The Oleg had to remain half a day at Skagen for repairs; the torpedo boat Pronsit-

elny was repaired in Frederikshaven (near the northern end of Denmark); and the Prosovlivy had to run into Brest (on the northwest coast of France) for repairs, which were not completed for five days.

The First Battleship Division, on reaching Vigo (Spain) required 24 hours' repairs on two of the ships; and from Suda Bay out, the torpedo-boat Bravy had to be sent to Pireus (near Athens, Greece) for the same purpose.

A number of vessels for carrying supplies of various kinds (provisions, coal and ammunition) were meanwhile added to the squadrons.

Admiral Rojestvensky's received the following:

Jupiter, 4,000 tons; Mercury, 4,000 tons; Anadyr, 7,100 tons; Malaga, 4,800 tons; Meteor, 4,300 tons; Esperance (loaded with frozen meat), 3,800 tons.

Admiral Folkersam's received:

Kiev, 5,500 tons; Voronesh, 5,600 tons; Knaes Gortchkoff, 3,300 tons; Saratoff, 5,400 tons; Yaroslav, 4,500 tons; Tamboff, 4,400 tons; Kostroma, 3,500 tons.

At Vladivostok the cruisers Gromoboi, Rossia and Bogatyr had meanwhile completed their repairs.

On September 6, 1904, the Japanese succeeded in completely destroying the wreck of the Novik.

THE LIEUTENANT'S DILEMMA.

(Concluded.)

"Well," resumed the trapper, "my uncle was up there once when a cold snap occurred. The weather was so severe, he told me, that everything from a mouse to a moose froze up solidly. All the wild animals in the forest froze through and through, and remained in that condition until the next spring, when they thawed out and resumed their former habits without any apparent change or injury, and as though nothing out of the ordinary had happened.

"My uncle went one day by invitation," he continued, "to visit the camp of some Ubiquita warriors, who had invited him to participate with them in a succotash feast. But the whole affair turned out a dismal failure because of the cold. The iron pot that contained the dried corn and beans of which the succotash was made, hung over a fire and the contents were constantly kept at a boiling heat. The people were supplied with wooden spoons carved out of pieces of birch bark, and helped themselves from the pot as they desired. But hurry as they might, the spoonful of boiling succotash would freeze solidly before they could get it to their mouths."

"It must have been very cold," exclaimed Kishnawau, as he drew his blanket tightly about his person and shivered in mock sympathy with the trapper's story. "It must have been very cold," he repeated. "It makes me shiver to think of it."

"Oh, that's nothing," said the trapper, looking critically the meanwhile at the Indian, as though he held the exhibition of his emotion in contempt. "That's nothing at all. Cold weather like that often happens up there. On this occasion, however, it may possibly have been a *little* more intense than usual.

"It annoyed the Ubiquitas greatly," continued the trapper, "that the weather had turned so bad on succotash day, as they feared it might interfere seriously with the progress of the feast. They greatly desired that their guests should go away well filled and with excellent impressions of the hospitality of their hosts, which might, possibly, not be fully realized if the weather continued so cold.

"But there was no help for it. They couldn't put off the feast, and they couldn't postpone the weather. They went to work, therefore, to do what they could to make the feast a success, and began by an attempt to increase the volume of the fire, with the hope that the succotash might be made so hot that it could be carried from the pot to their mouths before it would freeze. With this object in view they quickly added limbs of trees and dry brush and sticks to the fire, and at last, to their intense satisfaction and comfort, a great hot blaze sprung up that could be seen for a long distance about the place. But unfortunately, while the fire became hotter and the flame mounted higher, the weather gradually became colder, and finally when the blaze had reached its highest point a bitterly cold blast suddenly swept down from the north and froze it solid where it stood."

When the trapper had finished his fictitious narrative, the Indian placed both of his hands on his breast and threw himself back on his robe in a paroxysm of laughter. It was quickly evident, however, that he had attempted an emotional expression, with which he was not familiar, and the effect was rather comical than otherwise.

The trapper turned upon him fiercely.

"Does Kishnawau question the truth of my uncle's words?" he demanded.

"No, no," hurriedly replied the Indian. "Every word you uttered was the simple truth itself. Your uncle was a great warrior, I am sure. I was laughing because of the wonderful escape he had in not being frozen up like the animals and the flame."

"I am surprised," said the Lieutenant, "that my pilgrim companion, or even my pagan host, should expect the unreasonable narratives they have related would be believed, or assume to take offense if they were not. They were good stories, however," he continued, "and I think I can hereafter justly assert that Casca, in the play, has been cleverly outdone in his claim to have

> 'Seen tempests when the scolding winds
> Rived the knotted oak; and the ambitious ocean,
> When it swelled, and raged, and foamed,
> To be exalted to the threatening clouds.' "

In the meantime the taps on the drum had been continued with regular cadence, one after the other, and were now being accompanied by a monotonous chant in which several warriors standing among the spectators successively joined. As they united in the chant they quickly came forward and began to keep time to the taps of the

drum and their own inharmonious voices, by short, jerky motions of their bodies and feet, and circled about the Indian who pounded on the drum, as earnestly and seriously as though the performance was a duty rather than a pleasure.

The women of the village who had gathered to witness the dance stood apart in a group by themselves and watched the dancers with great interest, indulging the meanwhile in animated conversation, consisting for the most part in vigorous comments upon the physical proportions of the dancers, and the grace or awkwardness with which they carried themselves in accomplishing the stately movements of the dance.

Many of the women wore their blankets over their heads, quite concealing their features from the view of the Lieutenant, who sat earnestly the meanwhile watching the group as it grew, with the hope, apparently, of being able to recognize Satuma among the muffled figures that comprised it.

"The white chief seeks for his wife," said Kishnawau, as he observed the Lieutenant watching the women. "The heart of the white chief has begun to yearn for Satuma. I will hasten to the lodge of her mother," he said, as he rose to his feet, "and send her to the dance that the heart of the chief may be glad."

He had scarcely gone when one of the dancers in his eagerness to display his graceful movements to the visitors, came quite close to them, as he circled about the drummer. Unfortunately he failed to observe that a fold of the robe on which the visitors sat, extended into the space occupied by the dancers, and as he attempted to pass, the toe of his moccasin caught in the fold, and caused him to tumble headlong towards the trapper. The spectators were much amused at the incident and the women indulged in much subdued merriment, greatly to the apparent discomfiture of the unfortunate dancer. The trapper threw himself quickly aside as he saw the warrior falling towards him, and fortunately escaped any injury. The dancer, however, was not so fortunate, apparently, and striking heavily upon the hard ground sprained one of his ankles severely. He attempted at once to rise to his feet, but found that he was unable to stand and was compelled to lie down again on the ground.

The trapper hastened to the side of the prostrate dancer to offer such assistance as might be needed.

"The hurt is nothing," whispered the Indian. "Kiltano fell near the hunter that he might speak when no other could hear. His brother, Talquino, is angry and his knife is sharp. The father had prom-

ised to give him the girl, and now he has given her to another. Let the white chief go quickly away."

Rising presently to his feet the dancer made his way slowly from the place, limping painfully along as he went, and at last passed out of view among the spectators.

He had scarcely gone when Kishnawau returned and resumed his place on the robe by the side of the Lieutenant. At the same moment almost Satuma made her appearance among the women and forced her way well to the front of the group. The Lieutenant discovered her at once and thereafter watched her almost constantly while the dancing went on, hoping apparently to be able by a bow or a smile, or a wave of the hand, to let her know that he recognized her. But she persistently kept her face turned from him and refused to give him the opportunity he sought. Kishnawau watched the officer attentively and chuckled to himself as he observed the earnestness with which the "white chief" fixed his gaze upon the girl, and rubbed his hands vigorously together, like Hood's "happy man" who seemed "ever washing his hands with invisible soap in imperceptible water."

Suddenly, while this by-play was going on the drum-beats ceased and the drummer rising to his feet walked quietly away, carrying his drum with him. The women immediately began to disperse, and the warriors rapidly followed one after the other until finally the space where the dancing had occurred was entirely deserted.

As the people dispersed the Lieutenant and his companion made their way slowly back to the lodge, and after a few moments spent in conversation were about to lie down on their robes for the night, when Kishnawau appeared at the entrance. Pushing aside the deerskin curtain that hung at the door of the lodge, he peered into the darkness within for a moment and then calling to the Lieutenant in a cheerful voice as though he was the bearer of great, good news, exclaimed:

"Satuma has come! She desires to live in the lodge with her husband while he is here."

"Heavens!" exclaimed the Lieutenant, in a tone of remonstrance, as soon as the Indian's words had been interpreted to him. "The persistence of this miserable old heathen is beyond all precedent."

"Excuse me," said the trapper. "I will seek other quarters."

"Indeed you will not," cried the Lieutenant. "You will stay where you are. I don't propose to have a court martial one of these days trying to find out whether my conduct while a guest in an Indian village, was or was not *sans reproche*."

"The wife of the white chief waits at the door of his lodge," said Kishnawau.

"Let her wait!" exclaimed the Lieutenant, angrily, when the words of the Indian had been interpreted to him. "Tell the old reprobate that the 'white chief' is ill and can't see the girl until he recovers. Tell him to take her away."

The trapper finally made his way to the door, and after a brief conversation with the Indian urged him to take his daughter and go away. The Lieutenant, he said, was ill and was angry also, because the girl had refused to notice him at the dance, and declined now positively to see her. A kind of family row, the trapper pleaded, indulging the meanwhile in a forced laugh, that time would probably heal.

The girl disappeared quickly when the trapper ceased to speak, but her father lingered for awhile at the door of the lodge, evidently hoping that an opportunity would be given him to converse further with the Lieutenant. He took his departure finally, however, and went his way to his lodge.

"Keep up the row," said the trapper, addressing the Lieutenant, after the Indian had gone. "The girl slighted you at the dance and you are angry about it. Keep that idea hot," he continued, "until we get away."

A silence of several moments followed the remarks of the trapper, and the Lieutenant had almost fallen asleep on his bed when he was suddenly startled by a human hand coming in contact with his face. the lodge was intensely dark and it was impossible for him to discover who had touched him. It occurred to him instantly, however, that it was Satuma, who had returned and was seeking him in the darkness.

"Go away!" he shouted excitedly. "Go away! Your conduct is simply——"

"What's the matter?" interrupted the trapper, who had been awakened by the Lieutenant's outcry. "Whom are you talking to?"

"That horrid woman," he replied. "She's here in the lodge, and has just awakened me by rubbing her hand on my face. I'll give you a case of champaign when we return to the fort, if you will get up and turn her out."

"Pshaw!" exclaimed the trapper. "You've been dreaming."

He got up, however, from the robe on which he lay, and hastened to the door of the lodge. He had scarcely reached it when a warrior rushed past him and escaped from the lodge through the narrow entrance. The trapper attempted to seize him as he rushed past, but

the warrior quickly tore himself from his grasp and made his escape, leaving a piece of the woven ribbon, with which his hair was tied, in the trapper's hands.

The remainder of the night was spent in alternate watches by the Lieutenant and his companion, and daylight was gladly welcomed when it came. The trapper was firmly of the opinion that their unbidden visitor of the night before was Kishnawau himself, who had come to the bedside of the Lieutenant to satisfy his doubts concerning the illness of the officer, and had unintentionally touched him with his hand. But the Lieutenant was as firmly of the impression that the intruder was the woman, who was called his wife, and that the trapper had mistaken her for a warrior in the darkness.

They agreed at length to say nothing about the matter to their host, but to leave the village as soon as possible.

The clouds had nearly all disappeared when the Lieutenant stepped out of the lodge in the morning, and the snow barely covered the earth. Kishnawau came to see him soon after the Lieutenant appeared and was soon followed by a couple of his squaws bringing a platter of broiled venison for his guests. He was glad, he said, that the Lieutenant had recovered from his illness, and hoped that he would never be sick again. It was exceedingly uncomfortable, he continued, to be ill, especially when one had a new wife who adored him and was anxious to find a home in his lodge.

"But hasten," he said, " and finish the meat. The young men have found the bed of a bear not far away, and they can follow his trail now in the snow. The white chief must join in the hunt."

The Lieutenant protested against any further delay, and urged the necessity for his immediate departure. But the Indian was inexorable in his demand that his guests should remain for the hunt, and asked if the friendship of the white chief for himself and his people had grown so cold that a few hours' delay could not be made when they asked for it. He became so imperative at length that the officer, fearing to offend him, finally agreed to wait until midday before he would continue his journey.

The young braves in the meantime were hastily gathering, and when the Lieutenant and his companion made their appearance, they began racing their horses in every direction about the village to display their horsemanship to the strangers. Many of them rode exceedingly well, and a few performed marvelous feats of daring and skill on the backs of their horses.

With few exceptions they had dispensed with saddles, and rode upon the bare backs of their animals. Each horseman had a buck-

skin lariat coiled about the neck of his horse, one end of which was tied about the animal's lower jaw to serve the purpose of a bridle in guiding and controlling it.

The few saddles that were used were of unique construction, and consisted simply, in each case, of two soft, round rolls of buckskin, a foot or more in length and three or four inches in diameter, filled with hair, and joined together laterally by a strip of tanned wolf skin. A broad bearskin girth passed under the horse's body and held the stirrupless saddle in its place on the animal's back.

At length all was ready for the hunt, and the warriors who had gathered to participate in it galloped away together in the direction of a wild, broken country, lying in view of the village along a little stream that ran past the lodge of the chief. A few minutes' ride brought the leading horsemen to the ground where the bear had made his bed, and the dogs which had accompanied the warriors soon discovered the beast and drove it from its cover. The Indians were armed entirely with bows and arrows and lances, and when the creature appeared they galloped towards it, discharging their arrows when they came near, and then hastened rapidly away.

The bear was a grizzly of immense proportions, and apparently entirely destitute of fear. Instead of seeking safety in flight, as it might easily have done, it stood quietly awaiting the approach of its assailants, and from time to time, when they seemed to come within reach, charged suddenly upon them, scattering them in every direction. Several arrows struck the creature, but they seemed to do it but little harm. They stuck in its flesh and annoyed it, and possibly increased its fury when its tormentors came near, but they failed altogether to inflict serious injury upon it. Several of the dogs that accompanied the warriors were killed by blows from the creature's paws, and others were cruelly injured.

The Indians at last began to ride in a circle about the beast, encouraging each other as they urged their horses to a closer approach, until finally one luckless rider was thrown from his horse as the animal swerved suddenly aside to avoid a rush of the bear. The warrior scrambled instantly to his feet, and running to a small bushy tree that stood near, climbed up it with the agility of a cat. The bear sprang after him, and rising upon its hind feet came near seizing him with its claws. The weight of the creature bore heavily upon the tree as the animal leaned against it, and for a moment it seemed would force it to the ground. The Indians rushed instantly in a body upon the bear and displayed much courage in their efforts to divert the creature from its attacks upon their comrade. Some of them ap-

proached almost near enough to use their spears, and several warriors emptied their quivers of arrows at the beast at very close range. The animal, however, could not be induced to abandon its efforts to capture the prey almost within its reach, and bit and clawed at the tree, and surged its huge body against it with all its great strength.

At this juncture a cry rose among the Indians, imploring the assistance of the white chief to save the life of their companion. The Lieutenant immediately responded, and, approaching quite near, fired upon the bear from his rifle as the animal stood upon his hind feet endeavoring to reach the warrior with its claws. The ball struck the creature in the shoulder and inflicted a wound that brought it quickly to the ground. It seemed to comprehend at once that a new force had been brought against it, with which it was unable to contend, and immediately began to move away, shambling painfully along over the rough ground, evidently greatly distressed. The Lieutenant followed quickly after the beast and succeeded at last in inflicting a wound upon it that stretched it upon the ground. The Indians immediately surrounded the creature and carefully approached it. As they came near, it made frantic efforts to get upon its feet and growled hoarsely in its rage and snapped its huge jaws at them. It managed to rise several times upon its fore feet, and attempted from that position to charge upon the warriors who seemed within its reach. Its immense claws sunk deep in the ground when it made these efforts, and brought up large masses of earth with them as the muscular spasm subsided. Its ferocious growling never ceased for a moment, and it snapped its jaws and bit the air incessantly in the direction of its enemies. It grew constantly weaker, however, and its efforts to charge became more and more feeble. At last a warrior, taking advantage of a moment when the bear's attention was directed from him, rushed bravely upon the creature and sunk his spear into its heart, killing it almost instantly.

As soon as it was clearly apparent that the bear was dead, a *travois* was made, upon which it was placed, and the return to the village was immediately begun. The arrival of the warriors with the body of the bear was the signal for great rejoicing on the part of the old men and the women and children, who hurried from their lodges as the hunters appeared, and greeted them with loud words of commendation and praise.

While the noise and confusion was at its height the Lieutenant approached Kishnawau to bid him good-bye. The old Indian was very urgent that the white chief should remain to participate in the feast of bear meat, which was about to begin. But the Lieutenant refused

to listen and rode rapidly away while the Indian was still pleading that he should remain.

"I am glad we have gotten away at last," he said to his companion, after they had ridden in silence for some time." Neither snow storm nor rain storm, nor famine, nor pestilence," he continued, "could possibly induce me to return to those miserable people. My only regret is that the girl may possibly find it difficult to forget——."

"There's some one following us," interrupted the trapper. "Somebody on horseback," he continued.

He had scarcely ceased to speak when a young Indian warrior rode rapidly into view, and when the hunters had halted he came forward boldly towards them.

"I am on my way to visit some friends in the Unita Range," he said, "and would be glad to travel with the white chief for awhile."

The trapper was very suspicious of the purpose of the young Indian, and much inclined to refuse his request, but the Lieutenant urged that he should be permitted to remain with them. The journey was presently resumed and the party rode on in single file with the Indian between the Lieutenant and the trapper.

It had not gone far, however, when a pack on one of the led animals became disarranged, and a halt was made to adjust it.

The Indian seemed very restless, and repeatedly attempted to enter into conversation with the Lieutenant while the adjustment of the pack was being made, but for some reason ceased to speak in each case, immediately after he had begun. The trapper watched him carefully the meanwhile, fearing that some treachery was intended. At last the young warrior once more renewed the attempt to address the Lieutenant, and finally succeeded in asking with much hesitation and many repetitions, when he intended to return for his wife. The officer had ceased to think of the woman as his wife, and the question startled him like a shock of electricity.

"My wife!" he exclaimed, hurriedly. "Do you mean the Indian girl?"

"Yes," replied the warrior. "The wife Kishnawau gave to the white chief." Hoping doubtless by this full description to make it clear which wife was meant, if possibly there were others. "I came to buy Satuma from the white chief, if he will sell her," he said, at length, speaking earnestly. "I will give him three horses for his wife."

"I cannot trifle with this matter," replied the officer. "I would not abuse the young creature's confidence for all the horses in the Ute nation. What would she think of me if I would sell her?" he asked, indignantly.

"She would be glad," said the Indian, bluntly, when the Lieutenant's remarks were interpreted to him.

"That cannot be," replied the officer. "She wept when I first left the village, and turned an imploring face upon me when I tore myself from her."

"She wept for joy," said the Indian. "I will give three horses for her," he continued. "The father once promised her to me for two, but when the white chief came, he sent her to him as a gift. The girl mourns in the lodge because she is the wife of the white man. She will sing for joy when the chief sells her to Talquino."

"The girl wept for joy when the white man went away," repeated the Lieutenant, inquiringly, "Did the Ute say that?" he asked, earnestly.

"Yes," said the warrior, decidedly, when the question was interpreted to him. "She cried for joy when the white chief went away."

"The hussy!" exclaimed the Lieutenant, indignantly. "She has no appreciation of the advantages she might have enjoyed, and has foolishly rejected."

He laughed heartily, apparently to convey the impression that his words had been uttered in jest, but it was plainly evident that his laugh was forced and unnatural.

"How many horses did you say?" he asked, addressing the young warrior.

"Three horses," he replied.

"Three horses are scarcely enough," said the Lieutenant, with much apparent hesitation. "But I will take them," he continued, "and give them back to you at once, as a slight consolation for a man who will be burdened with a wife of such poor taste as this little Ute female has shown herself to possess."

The young warrior was overjoyed when the substance of the Lieutenant's words were interpreted to him, and after obtaining the promise of the Lieutenant that he would remain where he was until his return, he sprang upon the back of his horse and galloped away towards his lodge to bring the horses he had agreed to exchange for the wife of the white chief.

The day wore away slowly, and the Lieutenant waited and watched anxiously for the return of Talquino with his horses. He had consented to await the return of the young man with great reluctance, and had agreed to do so only upon the positive assurance of the trapper that the collapse of the contrivance of buckles and belts by which the pack was held in its place upon the back of the animal that

carried it, rendered a delay of some time necessary in order that the needed repairs might be made.

Late in the afternoon the tramping of horses' feet suddenly attracted the attention of the officer, and glancing hurriedly in the direction from which the sound came he caught sight of Kishnawau rapidly approaching through the forest, followed by Satuma.

"The Lord save us!" he exclaimed. "Here comes that miserable old reprobate again with his horrid daughter. I'll take to the woods," he cried to the trapper. "Tell them," he shouted, "that the small-pox has broken out here, and that I have gone into the wilderness to escape being pitted. Tell them——"

"Nonsense!" exclaimed the trapper, interrupting him. "Stay where you are and take your medicine like a man."

A moment thereafter Kishnawau rode hastily into full view and advancing to the spot where the Lieutenant stood, dismounted and greeted him effusively.

"Satuma has come!" he exclaimed, with much animation, as though he conveyed very welcome news, at the same time shaking the Lieutenant heartily by the hand.

The officer made no reply, but nodded his head and smiled at the girl, who had in the meantime dismounted and now stood behind her father, holding the horses by their lariats.

"Is it true?" asked Kishnawau, coming at once to business, "that the white chief desires to exchange his new wife for horses?"

"The woman is not suitable for the wife of an officer," the young man replied evasively.

"That is strange," said the Indian. "She has been carefully trained, and can saddle a horse and care for a lodge as well as any woman in the tribe."

"Those accomplishments," said the Lieutenant, "would fit her for life in an Indian lodge, but would not be needed in an officer's home."

The Indian seemed greatly perplexed, and for some time made no attempt to continue the conversation.

A new idea, however, struck him at last, and once more turning to the officer, he said, eagerly:

"The white chief might like his wife better if he should spend a few days with her in her lodge."

"I have but a short time left to spend in hunting," replied the Lieutenant, "and I cannot return to the lodge. I have promised Talquino to exchange the woman for horses, and when he is ready we will end the affair."

"Talquino's horses have strayed," said the Indian, "and he will bring them as soon as they can be found."

It was late in the afternoon before the needed repairs of the appliance used for holding the pack upon the back of the animal that carried it, were completed, and as further delay would probably be necessary to await the return of Talquino, the Lieutenant decided finally to bivouac where he was for the night. The saddles and packs were accordingly removed from the animals, and a fire was built in order that some food might be prepared for the evening meal. Satuma hastened to unsaddle her father's horse and her own, and after she had carefully tethered the animals to a tree near by, she sat down with her father in the little group about the fire.

The darkness came on at last and the night wore slowly away as the party sat almost in silence, waiting for Talquino.

"It would please Kishnawau greatly," said the Indian, suddenly, "if the white chief would refuse to exchange his wife for Talquino's horses."

The Lieutenant made no reply and Kishnawau continued:

"The white chief is rich," he said, "and Talquino is poor. The girl would grow fat in the lodge of the chief, but she would often be hungry in the lodge of the warrior."

The Lieutenant lighted his pipe anew and smoked vigorously, but he made no reply.

"Has the white chief looked at the girl carefully?" he asked, earnestly. "There has been but one woman like her ever known in the world. The chief knows who that woman was," he said, inquiringly.

"No," replied the Lieutenant, "I do not know, but I will be glad if Kishnawau will tell me."

"When Kishnawau's father was a boy," said the Indian.

"Same old racket," interrupted the trapper.

"When Kishnawau's father was a boy," repeated the Indian, decidedly, glancing resentfully at the trapper as he spoke, having evidently observed the captious tone of his voice. "Waukon, the head chief of the Utes, bought Suseeka, a Navajo girl, and took her to his lodge. The girl sorrowed greatly because she had been taken from her people, and refused to be comforted. She lay at night at the feet of her master in his lodge, but she could not sleep because of her desire to return to the hogan of her mother. She cooked the food her master brought to the lodge, but she ate nothing herself. She carried the water from the spring when her master desired to drink, but she drank nothing herself. At last the chief grew tired of the

woman's obstinacy, and struck her with his bow, as she lay moaning at his feet. She had never wept in the lodge of the chief, notwithstanding her sorrow, but now the tears came thick and fast. A few fell upon the embroidered deerskin moccasins of her master and dried where they fell. In the morning when the chief put his moccasins on his feet, he was greatly surprised to find them covered with bright, shining stones which had once been the woman's tears. When the chief went out of his lodge and walked in the sun, his moccasins seemed ablaze with the light from the stones, and when the fire shone upon them at night, it set them aflame."

"I suppose," said the trapper, "the stones were born with holes in them, and were strung on threads when they fell."

The Indian had measured lances with the trapper before, and had no desire to renew the contest. He therefore quietly ignored the remark and continued his story.

"The chief was proud of the bright stones on his moccasins," he said, "but sorry——"

"Did the brute strike his wife again?" asked the Lieutenant.

"Does the white chief speak of Waukon?" asked the Indian, in a tone of surprise, evidently intending the question and the manner in which he submitted it, as a protest against the Ute dignitary being called a "brute."

"Yes," replied the officer, testily. "The chief. The chief brute," he added. "Did he strike his wife again?"

"Probably," replied the Indian. "He had bought her and could do as he pleased with her."

A long silence followed the cruel remark of the Indian.

"My father often saw Suseeka," he said at length, " and he has also seen Satuma since she has grown to maturity, and he has often remarked that there were never two women so strangely alike. He believes that if Satuma should receive a blow in anger from her husband, she too might shed stones from her eyes like those that fell upon the moccasins of the chief from the eyes of Suseeka. If the white chief cares to try," he continued, speaking slowly as though he was feeling his way over uncertain ground. "If the white chief cares to try," he repeated.

"Heavens!" exclaimed the lieutenant in feigned alarm, as a loud, deep, long drawn snore, quite near him, suddenly interrupted the pleading of the Indian.

"What horrid noise was that?"

"It was nothing," said the Indian calmly. "Satuma is tired and sleeps soundly."

"And snores," supplemented the lieutenant. "No, Kishnawau," he continued, shaking his head as he spoke," neither the hope of pearls, or even diamonds, shed as tears from the eyes of Satuma, or any other consideration, would cause me to go back on my word and take a woman as my wife who snores. That snore, Kishnawau, has settled the matter for me. I have promised to exchange her for Talquino's horses, and when he comes Satuma will go promptly to her new master. I couldn't possibly think of having any thing to do with a woman who snores."

At an early hour on the following morning the Lieutenant, and the people with him in the bivouac, were suddenly aroused by the loud cries of Talquino, as he came racing his horses through the forest..

"They had strayed far into the mountains," he said, "and the journey was a long one."

"We have waited for you as you see," said the Lieutenant "and. now, if you are ready, we will make the exchange upon which we have agreed."

The young Indian eagerly expressed his desire to consummate the exchange as promptly as possible, and leading the animals forward formally delivered them to the Lieutenant. When this had been accomplished, the officer and his companion immediately began to prepare to resume their journey, and were soon ready to proceed.

As the young warrior stood before the officer, his face aglow with satisfaction over the trade he had effected, the trapper stepped quietly behind him and gazed earnestly for a moment at the ribbon with which his long hair was bound in a braid at his back. It was made of many colored threads split from the flexible quills of the porcupine, and was evidently the handiwork of some Ute woman skilled in the use of the native loom.

The trapper moved quickly in front of the young warrior when he had completed his examination, and holding up to his view the piece of ribbon he had torn from the head of the warrior who had stealthily at night entered the lodge occupied by the Lieutenant and himself, boldly accused him of being the intruder. After a moment's silence the trapper demanded what had been his purpose in entering the lodge.

"Talquino came to find Satuma," he said indifferently.

"And how would it have concerned Talquino," asked the trapper, "if he had found her in the lodge?"

The young warrior's eyes burned like living coals of fire as he turned a defiant gaze upon his questioner.

"Talquino had first claim to the girl," he replied fiercely, "and if he had found her in the lodge his knife would have gone quick to the hilt in the heart of the white chief."

"Let us go," said the officer, who had observed with some apprehension the earnest conversation between his companion and the Indian. "Let us go," he repeated, "before some new complications overtake us."

The Lieutenant and his companion then mounted their horses, and once more bidding Kishnawau good bye, rode rapidly away, leaving behind them the animals Talquino had brought to exchange for Satuma.

Returning at once to the wooded valley of the San Juan, the hunters spent several days in searching for game in that great natural feeding ground, and when their led horses could carry no more of the spoils of the chase, they slowly wended their way back to the military station from which they had come.

Scarcely more than a year had elapsed after the close of this memorable trip when the Lieutenant was startled one day as he sat in his quarters at the fort, by the unceremonious entrance of Kishnawau, accompanied by the post interpreter.

"Satuma has come!" cried the Indian as he sprang forward to greet the officer with both hands extended for an embrace. "Satuma has come!" he repeated.

"Heavens!" exclaimed the Lieutenant, springing from his chair as he spoke. "Has the ghost of that cruel maladventure turned up once more to plague me?"

"Talquino is dead," said the Indian. "An Apache shot him with an arrow, and Satuma has no food in the lodge."

"Oh, is that all!" cried the officer with a deep sigh of relief. "I was afraid there still remained some questions of marital obligations in which I was personally concerned. It seems, however," he said, addressing the interpreter, "that they have come simply to ask for some food."

"Yes, sir," replied the man. "The old warrior and his people are hungry," he says, "and he has come to the fort to beg for something to eat."

The appeal of the Indian met with a prompt and liberal response from the officer, who seemed anxious to have the affair speedily concluded, and a few days thereafter the old Ute warrior and his daughter Satuma took their departure for their homes, heavily laden with gifts of clothing and food.

H. R. Brinkerhoff,
Colonel U. S. Army.

*GARCIA.**

A LEGEND OF SAN BERNARDINO VALLEY, CALIFORNIA.

LIKE a painting set in a frame of green
Is the lovely vale of San Bernardine.
There the Santa Ana in beauty flows
From its icy founts in the distant snows,
And divides the bloom with its waters cold,
Like a silver seam in a disk of gold.
O what bard in song may describe the scene
Of that valley set in its frame of green;
Or what artist soul in its grandest flight
Ever placed on canvas so fair a sight!
There the orange bends with its golden fruit
When the rills of the north with the frosts are mute;
And the lime-tree yieldeth its juicy prize
When the rains congeal in less balmy skies:
There the fig-tree blossoms to cheer the swains
When the snow lies deep on more northern plains;
And a flowery carpet o'erspreads the field
When in ruder climates the fonts are sealed;
And the droning bees on their journeys fill
All the air with sound as on Hybla's hill.

* * * * * * *

Ah! who could believe to a landscape like this
  That Sin ever came with adversity laden;
That Death with his glance ever ended the bliss
  Of a lover, or froze the sweet smile of a maiden?
Alas, for a spot on this fair earth of ours,
  Untainted by evil where mortals are dwelling;
Where blood may not stain the bright hue of the flowers,
  From wounds that are cruel in crimson drops welling!

* * * * * * *

*Reprinted from first series of UNITED SERVICE.

This earth indeed is full of sadness;
  No place below is free from guile;
No heart is always cheered with gladness;
  And tears may drown the happiest smile.

And crime hath passed the emerald setting
  Of yonder valley, broad and fair;
A bloody deed and sorrow's fretting
  Destroyed the loveliest maiden there.

I would the ghostly scene might vanish
  From memory's halls, to end my song.
I fain the mournful theme would banish,—
  But gloomy thoughts my notes prolong!

* * * * * * *

Mid rural scenes begins the tale—
  Mid rustic joys and rustic hopes—
Where Santa Ana skirts the vale,
  And laves the feet of neighboring slopes.
Along the river's banks that smile
  With willows green and flowerets bright,
A Spanish hamlet, mile on mile,
  In peaceful beauty cheered the sight.
Long, long ago the town was built
  By hands devout from distant Spain;
Long, long ago the blood was spilt
  That cast a gloom o'er yonder plain,—
Ere tempting dreams of wealth untold
  Sent eager hearts and eager hands
To California's hills of gold,
  To delve among her glittering sands.
Yes, mile on mile the village wound
  Its length of shade in years gone by;
Still mile on mile the fruitful ground
  In flowery splendor greets the eye.
Midway, an ancient convent threw
  Its shadows deep from ivied wall;
Near by, a sombre cypress grew,
  To hide its turrets grim and tall.
Before the gates, from gallows' beam,

A ponderous bell,—so strangely hung!—
To warn of priestly prayer and theme,
In solemn cadence daily swung.
And still its note of warning rings
At vesper hour and early dawn;
In belfry strange the monster swings
Above the lonely convent lawn.

* * * * * * *

Yet I come not here in priestly guise,
To reveal the depth of priestly art;
But my theme, alas, is of tearful eyes
And the crime that broke a maiden's heart!

* * * * * * *

With vine-clad porch, a cottage neat
Once stood beyond the convent's height;
A home-like view from village street,—
To stranger eyes a charming sight.
There Garcia dwelt in rustic bliss,
With home and parents doubly blest:
No grander scene on earth than this
Ere gave her virgin thoughts unrest.
And thither Gomez, ardent swain,
To woo the maiden, hied apace
When gathering shades obscured the plain,
And veiled their secret trysting-place.
Thus day by day with whispered vows
This blameless pair renewed their love;
Beneath the sombre cypress-boughs
That bent their friendly arms above.
Once blissful spot! thy joys are fled;
No more the cypress forms thy shade;
Those whispering lovers both are dead;
The convent walls in dust are laid.

* * * * * * *

Ah! fain would I sing of the trysting of lovers,
And tell of the vows that once hallowed the shade;
But the Angel of Death round the cypress-tree hovers,
And woe is the theme of my numbers instead.

* * * * * * *

One summer's eve in the golden light,
  As in western glory the sun went down,
A proud gray steed and a prouder knight
  Came slowly up through the Spanish town.
The cavalier with his plume of snow,
  In his velvet cloak, with his ringlets curled,
To many a wondering maid, I trow,
  Was a fancied prince from the outer world.
The stranger rode by the convent bell,
  So queerly hung, and he quickly spied
Those lovers true where the shadows fell
  From cypress drear by the convent side.
On the charger's neck as the reins were flung,
  By the convent gate near the dusty road,
With a gallant air to the ground he swung;
  With a graceful step to the trysting strode.
'Twas a rueful moment, sweet maid, for thee,
  For it sealed the doom of thy doting swain,
When to view thy charms by the cypress-tree
  The stranger drew on the bridle-rein!
With a lordly pace, in his brilliant gear,
  The knight passed over the emerald grass;
With a glance of scorn for her lover near,
  Addressed these words to the blushing lass:
"Tell me truly, nymph, in a town like this
  If a weary rider may find repose?
Nay, to prove my faith, I bestow a kiss
  On those lips of thine, that outbloom the rose."
And his arm enfolded her slender waist.
  But a stinging blow from a brawny hand
Gave a stern rebuke to that clasp unchaste,
  And denied the kiss that the lordling planned.
Ah! surely then had there blood been shed,
  As from the silver scabbard the poniard flew,
But with tears o'erflowing the maiden plead,
  As around her lover her arms she threw.
So the stranger turned on his spur-clad heel,
  With a muttered curse and a glance of hate;
And slowly sheathing the wounding steel,
  With a haughty stride sought the convent gate.
A month elapsed: in that blissful spot
  Where the shadows fell when the sun went down,

The stranger's coming was quite forgot
  By those lovers true in that Spanish town.

* * * * * * *

A month passed by: the youth must ride
Through mountain pass to desert side,—
A rugged road through dangers great
From white man's greed and red man's hate.
So Gomez came at vesper bell
To bid his love a brief farewell.
Ah! little dreamed the youth that night
They'd meet no more by convent's height.
The maiden wept, and bade him stay.
The youth was grieved, but answered, "Nay,—
Weep not, my love, the time is brief;
I'll soon return; restrain thy grief.
The moon is full, the sky is clear;
In one short week I'll meet thee here.
Nay, nay, my love, these tearful eyes
Become thee not,—these bitter sighs.
No dangers haunt the glen or plain
Thy lover dreads,—thy fears are vain.
In one short week, at evening bell,—
Remember, love,—till then, farewell!"
But still she wept, and still replied,
"Ah! Gomez, *do* not quit my side."

* * * * * * *

'Tis a sad, sad thing in a world like this,
  When the friends we cherish their bonds may sever;
But a sadder thing is a maiden's kiss,
  And her farewell spoken,—perchance, forever!

* * * * * * *

One fond caress and a last embrace,—
A lonely form at the trysting-place.
The rattling hoofs of the mustang fell
On Garcia's ear like her lover's knell.
Long, long she stood in the dewy shade,
  And lingered close to that blissful spot.
Long, long thou'lt wait for the youth, sweet maid,
  Who'll come no more to the wayside cot!

* * * * * * *

O'er valley's breadth, in the moonlight pale,
  The youth sped on,—the way was long;
He heeded not the night-bird's wail,—
  His heart was brave, his mustang strong.
O'er Santa Ana's rippling tide
  The youth sped on,—the way was clear;
But ere he reached the mountain side
  The moon sank low,—the pass was drear!

* * * * * * *

I would the ghostly scene might vanish
  From Memory's halls, to end my song;
I fain the mournful theme would banish,
  But gloomy thoughts my notes prolong!

* * * * * * *

Where echoes now the steam-cry hoarse,
  And wakes the dusky shades of night,
The dauntless rider bent his course,
  And spurred his steed in the fading light.
Ill-fated youth, thy mission stay,—
  The Fiend of Death is on thy track!
A demon haunts thine upward way,—
  Beware, beware,—turn back—turn back!
A rocky point—a lurking form
  With plume of snow—rash youth, beware!
The flash of steel—a threatening arm—
  A cry that pierced the midnight air;
A chasm deep—a sudden push—
  A shriek that rent the darkness chill;
A struggling form—a downward rush—
  A heavy sound—the glen was still!

* * * * * * *

O God, in Thy mercy we may not discover
  The woe that the future conceals in its gloom;
    Or know of the dangers that round us may hover,—
      Thou'st veiled in Thy goodness our path to the tomb!

* * * * * * *

The weary days—a week—passed by;
  Fair Garcia's memory marked them well:
Again she watched with love-lit eye
  By convent side where shadows fell.
The vesper warning, loud and clear,
  Rang out the knell of closing day;
The maiden stood with listening ear
  For coming hoofs o'er the dusky way.
An anxious hour,—it seemed a year,—
  Another passed, and yet a third;
The night-winds passed the cypress drear,—
  No sound of coming hoofs was heard.
God help thee, maid! thy lover lies
  Now crushed and still in yonder glen:
God help thee, maid! thy sad, sad eyes
  Will never greet his form again.

* * * * * * *

As yonder lily bows its crest
  Upon the stem with rain-drops laden:
With drooping brow that sought her breast,
  By tears o'erwhelmed, there stood the maiden.

Thus long she grieved; then dried her tears,—
  For Hope returned to ease her sorrow.
"Sad heart," she whispered, "cease thy fears,—
  My love will surely come to-morrow."

O heavenly Hope! thy coming brings
  A peaceful hour to mortals weary;
In grief we hail thy rustling wings,—
  Without thee, life indeed were dreary.

Day after day, by convent side
  The maiden still her tryst was keeping;
Day after day, at eventide
  Her longing eyes were red with weeping.

Day after day, she dried her tears,—
  For Hope returned to ease her sorrow;

Day after day, she chid her fears,—
"My love," she whispered, "comes to-morrow."

* * * * * * *

In central valley, drear and lone,
Is Slover mount o'ergrown with sages:
Like some huge monster, changed to stone,
That fell asleep in distant ages.
A curious legend, quaintly told,—
That trembling lips with awe recite,—
Proclaims how fiends their revels hold
At midnight hour on Slover's height:
How maidens then whose hearts are true,
Nor fear the shapes that round them hover,
Who climb the steep alone may view,
By vision strange, an absent lover.
If this be truth, I cannot say:
Yet travelers past that mount by night,
Belated on their homeward way,
Have seen a weird, unearthly light!

* * * * * * *

A year of waiting! Garcia's cheek
Grew wan and pale her vigil keeping;
Beset by fears she dared not speak,
Her sad, sad eyes were red with weeping.

But heavenly hope on angel wings
Returned once more to ease her sorrow;
By cypress drear the maiden sings,
"My love will surely come to-morrow."

O faithful heart, so rudely tried,
Now cease thy tears—thy bitter sighing;
No more the youth will press thy side,—
In yonder glen his bones are lying!

* * * * * * *

A weary year! For troubled rest,
As Garcia sought her couch one night,
An unknown longing filled her breast
To visit Slover's lonely height.

"I fain would see my love," she sighed;
"I fain would test his potent spell."
"The moon shines clear," her heart replied;
"Fear not,—thy faith will shield thee well."

* * * * * * *

A ghostly form in a robe of white,—
A spectral shape on the silent street,—
That onward glides in the silvery light,
With noiseless tread, as of phantom feet!
With longing strange to the central vale
The maiden sped, and her heart was true:
She took no note of the night-bird's wail—
The wounding thorns that her feet passed through.
The centipedes from their slumbers wake;
The scorpion peers from its den, I wot:
She hears the whir of the rattlesnake,—
Her heart is true and she heeds them not.
One lingering hope in her breast remained,—
To reach the mountain that rose above her.
"If yonder summit in time be gained,
"I'll find," she murmured, "my absent lover."
She gained the slope; and a moment stayed
Her weary journey for needful rest;
Then breathed a prayer to the Saints for aid,
And hurried on to the lonely crest.
What shapes unearthly—what ghostly scene
Of murdered lover—there met her sight
No mortal kens: it is left, I ween,
A secret hid from the Judgment light.
But a pilgrim late o'er the vale alone—
As home returning his footsteps press—
On Slover's peak where the moonlight shone,
Beheld a form in a ghostly dress.
And a shriek rang out on the midnight air,
That sounded far o'er the neighboring plains,—
'Twas a shriek of wild and dark despair,
That froze the blood in the pilgrim's veins!

* * * * * * *

The morning dawned; the convent bell
  To slumbering priests gave warning sound.
By cypress drear where shadows fell,
  In ghostly garb, the maid was found.
Ah! gently lift her drooping head,
  O'er which in drops the dew is lying.
O priest, thy prayers be quickly said,—
  Thy shrift is late—the maid is dying!
Her pallid brow is chilled by death,—
  Hope comes no more to ease her sorrow.
"I know," she sighs with parting breath,
  "I *know* he will not come to-morrow."

* * * * * * *

By the late HENRY HUBBARD PIERCE,

Captain U. S. Army.

*THE AFTER-DINNER ORATORY OF AMERICA**

THE after-dinner speech of America is framed in a peculiar and distinct reputation of its own. It is a phase of intellectual effort that has no counterpart elsewhere. The popular conception of it existing on this side of the Atlantic associates it with good stories, riant humor, graceful rhetoric, quaint conceits, and a genius for dexterously manipulating and alternating in a brief compass the lighter and graver shades of thought. To reach the accepted standard of American criticism it must have all the choice qualities of Sheridan's dialogue. It must be a gem in prose as one of Austin Dobson's masterpieces is in poetry. It must sparkle and effervesce like the higher brands of champagne. It must be as spontaneous, or, at all events, appear to be as spontaneous, as the irrepressible waters of a mountain spring. The man who labors with an after-dinner speech in Boston or New York is lost. It will not, however, appear surprising that this post-prandial eloquence of America has won for itself a unique fame when it is remembered that amongst those who have frequently responded to the toastmaster's call in that country have been such men as Oliver Wendell Holmes, James Russell Lowell, Mark Twain, Ralph Waldo Emerson, Colonel John Hay, Edmund Clarence Stedman, William Cullen Bryant, George William Curtis, William Dean Howells, Whitelaw Reid, Charles Dudley Warner, Joseph Hodges Choate, and Chauncey Mitchell Depew. For what a wealth of charming, playful, gossamer fancies these names stand! The very mention of them conjures up delightful visions of festive boards from which a stern decree of outlawry banishes everything hostile to genial friendship, buoyant gaiety, and robust cheerfulness. A random summons to any one of this goodly company never failed to find an expert in the dainty art of illustrating how possible it is that "a man may say a wise thing though he say it with a laugh." And in the case of the men whom I have named, as well as of others whom I might readily cite, their laughter was always

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healthy, stimulating, and contagious, for the simple reason that the happy humor which provoked the hilarity was never sour nor cynical nor calculated to leave a wound behind. To these fellows of infinite jest the tribute which Moore paid to the author of "The School for Scandal" might well be extended—

> Whose humor, as gay as the fire-fly's light,
> Played round every subject and shone as it played,
> Whose wit in the combat, as gentle as bright,
> Ne'er carried a heart-stain away on its blade.

There is no difficulty in comprehending why a social function which held within itself the power of attracting the presence of men of this stamp should steadily develop into a permanent feature of American life.

It would be an interesting, and probably an entertaining, enterprise to trace systematically the evolution of the after-dinner speech of America. Doubtless there was a time when the accompaniments and surroundings of a public dinner in London and New York were practically alike in their details. However great may have been the difference between the dispositions and constitutional theories of the early Hollanders of the settlement on the Hudson and the incoming New Eng anders, and however marked the contrast may have been later on in the same respects between the type that sprung from the union of these two and the stay-at-home Briton, all of them came ultimately to offer a common allegiance to the seductive autocracy of an all-powerful chef. Hollander, New Englander, and Briton alike drifted pacifically and unresistingly to the comforting conclusion that the psychological moment at which human nature found itself best fitted to exalt human virtues, and to extend a sweet forbearance to human weaknesses, followed immediately on generous and ungrudging satisfaction being given to a patient and waiting appetite. It was discovered that at that precise juncture a benign *pax vobiscum* held sovereign sway. So men came together around a dinner table to do honor to some special or distinguished guest, or to celebrate some conspicuous national event in which the people at large took legitimate pride. The early fashion on those occasions, on both sides of the Atlantic, was to do justice to a toast-list, which was kept within moderate limits, in speeches, eloquent occasionally, but serious at all times. The age then took its responsibilities

with greater gravity than ours, I am afraid, is in the habit of doing. Culture had not learned how to disport itself so cunningly as it does nowadays. Hence. even in America, if an orator had the temerity to lean towards anything savoring of levity in proposing, or responding to a toast such as, "The Day We Celebrate," or "The Memory We Honor," his conduct would be resented with something like the indignation shown by a few over-sensitive American Dutchmen when Washington Irving, masquerading as Diedrich Knickerbocker, published his inimitable History of New York. But "old times are changed, old manners gone," as a convenient illustration may serve to show. There is still extant a speech delivered at the annual dinner of the New England Society of New York in 1850 by Daniel Webster, a name famous in the annals of American statesmanship. This speech, which runs to a considerable length, was one made in response to the toast of "The Constitution and the Union." It is full of noble eloquence and virile thought, and is inspired throughout by a lofty sentiment of patriotism. There is, however, no note of humor in it, nor does it contain a single anecdote or an amusing story which might have tickled the orator's fellow-diners. The report of the speech is plentifully studded with "prolonged applause," "tumultuous applause," and "loud and repeated cheers," but there is a notable absence of any record of "laughter." This rigidly earnest and strenuous style of address suggests itself as being in natural keeping with the accepted character of that uncompromising zealot—the Puritan of Plymouth Rock, whose achievements as a pioneer settler, and as a model in qualities of ascetic self-denial which his descendants have scarcely maintained in their integrity, are commemorated annually, on the 22nd of December, at numerous choice and high-class dinners promoted in leading American centres by a multitude of New England societies.

The more modern taste, however, is not so exacting as that which seems to have ruled in Daniel Webster's day. Even the grim Puritan tradition, with all its warp and woof of austerity and aloofness from frivolity, now finds itself used as a toy and sported with by the Bohemianism of the after-dinner speech. The same New England Society of New York, which was stirred to enthusiasm half a century ago by Webster's impassioned periods, honors the memory of the men of the Mayflower in our time by laughing boisterously at the merry sallies of such exemplary Puritans as Mark Twain and Chauncey M. Depew. It is extremely improbable that the Pilgrim Fathers ever frittered away a moment idly by speculating as to whether or not they

were destined to fill a niche in history. But if they ever weakly allowed such a piece of vanity to force its ungodly way into their thoughts for a passing instant, they were happily saved, it is to be hoped, from any fore-knowledge of the nature of the verbal homage that would be paid to their record and character on the approach of the twentieth century. One can imagine the pang of horror, the agony of affliction, and then the righteous rage which would have overtaken that stalwart Puritan divine, Cotton Mather, if he had been present, say, at the annual dinner given by this New England Society of New York exactly fifty years after the one at which Daniel Webster spoke. I mention this dinner, not because there was anything exceptionally remarkable about it, but simply because fifty years is a nice round period. It was held in the Waldorf-Astoria Hotel on the 22nd of December, 1899, and we may assume that it was sumptuously served. The chair was occupied by the president of the society, Judge Henry E. Howland, and his introductory after-dinner speech, which framed a fine panegyric of the olden Puritans, exhibited the usual happy blend of good stories and polished rhetoric. Cotton Mather might have tolerated the rhetoric, but his leniency, it is to be feared, would scarcely have extended to the stories. As he listened to them, and associated them with the delicacies of the table, which had just been cleared away, there would have been considerable danger of his angrily demanding if the levity in speech and the riotousness in living, which had cost an English king his head, had returned to the land? His first shock, in all likelihood, would have come with Judge Howland's first story. That story is reported in this fashion:

"The grim, stern Puritan, with the austere face and peaked hat, and the lean, wild, loping Indian are here supplanted by a company whose well-rounded figures and genial faces reflect the assurance of the possession of sky-scraping buildings, pipe-lines, through lines, warehouses, well-stuffed deposit vaults, and comfortable bank accounts (laughter), upon whom smile from those boxes the blessings which, like those of Providence, come from above (applause) and cause us to echo the sentiment unconsciously expressed by the lady who was distributing tracts in the streets of London. She handed one to a cabman; he glanced at it, handed it back, touched his hat, and politely said: 'Thank you, lady, I am a married man' (laughter). She looked nervously at the title, which was, 'Abide with me' (laughter) and hurriedly departed. Under this inspiration we agree with the proverb of the Eastern sage: 'To be constant in love to one is good;

to be constant to many is great' (laughter). But we must remember, while the critical eyes of our households are upon us, that our halos will never be too small for our heads" (laughter).

After this, if the Puritan divine remained calm enough to venture on a piece of criticism, he would probably say that in the following story Judge Howland pointed an important historical truth by a frivolous illustration:

"The archbishop and ministers of King James, who drove these men and the 26,000 who followed them, the flower of the English Puritans, from England, like Louis the Fourteenth, when he sent the Huguenots into exile by the revocation of the Edict of Nantes, furnished an example to that master of the school where the Eton system of flogging prevailed. On a Saturday morning the delinquents were called up to be flogged. One of the boys inquired, 'What am I to be punished for, sir?' 'I don't know, but your name is down on the list, and I shall have to go through with it;' and the flogging was administered. The boy made such a fuss that the master looked over the list on his return to his rooms, to see whether he had made a mistake, and found that he had whipped the confirmation class" (laughter).

Another story told by Judge Howland would scarcely fall with any more soothing effect on the mind of Cotton Mather, who would likely, instead of being moved by a sense of humor, see in the recital only a spirit of shocking irreverence:

"There have been times in the late history of the country when the Puritan was not altogether popular, and the feeling entertained toward him and his descendants was expressed like that at a Liberal meeting in Scotland, where the proceedings were being opened by prayer, and the reverend gentleman prayed fervently that 'the Liberals might hang a' thegither.' He was interrupted by a loud and irreverent 'Amen' from the back of the hall. 'Not, O Lord,' went on the clergyman, 'in the sense in which that profane scoffer would have you to understand, but that they may hang thegither in accord and concord.' 'I dinna care so much what kind of a cord it is,' struck in a voice, 'sae lang as it is a strong cord' " (laughter).

This close association of prayer and laughter would again grate harshly on the listener's ears in the succeeding illustrations of the Judge:

"Fortunately for them, and perhaps for the world, opinions differed enough to give them a chance. 'You can't always tell,' said a man, at the end of a discussion, 'what one's neighbors think of him.' 'I came mighty near knowing once,' said a citizen, with a reminiscent

look, 'but the jury disagreed' (laughter). But with the Puritans, when discussion ceased, and other arguments began, the result was like that when the lady said to her clergyman, who was paying her an afternoon call, of her little boy, who bore the marks of a struggle: 'Johnny has been a bad little boy to-day; he has been fighting, and has got a black eye.' 'So I see,' said the clergyman. 'Come into the next room with me Johnny, and I will pray with you.' 'You had better go home,' replied Johnny, 'and pray with your own little boy; he has got two black eyes' (laughter)."

In this way the chairman of the ninety-fourth anniversary banquet of the New England Society of New York, only following, it must be said, the fashion of the day, seemed to take a reckless delight in keeping up a running fire of playful anecdotes, just allowing his hearers to pop up their heads for a second or two between the discharges to catch a fleeting glimpse of the actuality of the struggle and endurance of the old-time Puritans. From these two commemorations which I have instanced, both organized to do honor to the fame of the men of the Mayflower, we can gather in a general way the measure of the change which came over the form and matter of the after-dinner speech in America between the earlier years and the end of the late century. In the 1850 speech of Daniel Webster we find a high strain of stately eloquence unbrokenly preserved. In the 1899 speech of Judge Howland we meet with more composite art, and we are almost coerced into admiration by the singularly fearless way in which the effects of light and shade are handled. Eloquence befitting the theme of the orator is plentifully in evidence, but the interval is never very long until this is made to merge adroitly in the humor which is drawn from the light comedy of some felicitous illustration. That there never was the remotest danger of the tension becoming strained will be obvious when I say that the Judge told no fewer than fifteen stories, and that in the report of his speech "laughter" is bracketed in as many as twenty-five different places. Nor, as compared with other speakers on like occasions, was Judge Howland extravagantly facetious. The speech was a fair, average sample of the method of treatment meted out post-prandially to all kinds of toasts, grave and gay alike, at the public-dinner tables of America. Take, for instance, an achievement which lies to the credit of General Horace Porter. The General would appear to have been in much demand at these anniversary dinners of New York's New England Society, and, in glancing at the reports of four different speeches of his, we find that the good things said by him in the course of them were so provocative of hilarity that "laugh-

ter" is duly recorded no fewer than seventy-five times. It is not an unreasonable supposition that the grim and sombre personalities whose memories were being honored by General Porter and his friends found themselves, when in the flesh, so weighted down by solemn contemplation of spiritual problems that they never laughed so often in the whole course of their lives.

It has to be remarked, further, that the *rôle* of chartered jester on these occasions is not a monopoly in the hands of the mere layman. Staid and somber-minded clergymen at these festive gatherings have no hesitation in entering the lists as rivals to judges or generals, or, indeed, to all comers. Even the Bench of Bishops has been known to put aside its episcopal dignity for the time being to make fun out of the Puritan legend. As guests of the New England Society, Mark Twain and Chauncey M. Depew have ruthlessly smitten *ennui* and prim formality, but neither of them, at his best, was ever more riotously jocular, in the character of a modern Puritan, than such reverend gentlemen as Dr. Henry C. Potter, the Protestant Bishop of New York, Rev. Henry Ward Beecher, Rev. Dr. de Witt Talmage, and the Rev. Joseph H. Twichell, of Hartford, Connecticut. We might, if we sought to establish in fancy an English parallel to these enjoyable American functions, imagine a dinner given in commemoration of the acquittal of the seven bishops, or as a tribute to the memory of John Knox, at which the leading toasts would be entrusted to distinguished ornaments of the Church and State, who, in preparing their orations, would have to be most particular in blending artistically with any historical or philosophical observations that they might make a due proportion of the peculiar material which goes to make up the letterpress usually found in association with the art of John Leech, or Charles Keene, or Phil May.

That we have to invent such a supposition shows how far asunder the conditions of after-dinner speaking in England and America have drifted. In London those who rise to speak at the Lord Mayor's hospitable board take their keynote from the gravity of a Prime Minister. If the fashion of New York crossed the Atlantic a Mansion House dinner or a Royal Academy banquet would lose much of its present formidable solemnity, and the reports of the proceedings in the ensuing issue of the daily papers would offer more cheerful reading than one finds embodied in them under existing circumstances. It may be true, of course, that no fair comparison can be instituted between a Puritan anniversary dinner in New York and a Mansion House banquet in London. But we can get over this difficulty, however, and

have none of our impressions disturbed, by taking a class of dinner which is common to both countries. Starting, as it were, on equal terms, nothing, perhaps, could bring out more effectually the contrast between two styles of after-dinner eloquence, or could be at the same time more typical of the national temperament, than the oratory heard at the dinners of those Chambers of Commerce which guard the interests of trade on either side of the ocean. On the one hand, the speeches, reflecting a disposition inclined to be somewhat volatile, are as full of change and variety as the *menu* is full of an assortment of skilfully contrived dishes; while, on the other hand, they are so undeviatingly substantial in statement and argument as to be at once suggestive of that generous roast beef which stands universally for British solidity. Charles Kingsley, in his introduction to Alton Locke, addressing John Bull, says: "You are always calling out for facts, and have a firm belief in salvation by statistics. Well, listen to a few." Kingsley's observation would make an admirable general motto for the toast lists of the dinners of English Chambers of Commerce. It may be said that invariably at these functions every fresh speech is but an echo of one that has gone before. A long array of statistics, pictures of the fluctuation of trade, the proper interpretation to be put on the rise and fall of prices, the moral to be drawn from the table of the year's exports and imports, a homily on the danger to British markets that lies in foreign competition—these trite, if not very inspiriting, topics may be reasonably taken as representing pretty exhaustively the subject-matter of all that is said at England's mercantile feasts. But our American neighbors take a more catholic view of the possibilities of a Chamber of Commerce dinner. They seem to think that the gratuitous imposition of a further course, consisting of unrelieved statistics, as a sequel to the many other courses which have already been served, would lamentably jeopardise that good digestion which Shakespeare hoped might always wait on appetite. Hence when the mercantile magnates of an American city come together to dine they do not lay it down as an inflexible rule that the sentiments which find expression when the dessert stage of the banquet has been passed must savor exclusively of a bill of lading or the columns of a ledger account. The whimsical phrase, the inevitable anecdote, the fine literary turn of thought, are as common here as they are elsewhere, Those who think that the more delicate phases of art, literature, or philosophy should only be reverenced and expounded in an inner circle of superfine intellectual culture, far removed from the common skirts of the madding crowd, will doubtless regard it as insufferably

incongruous that the following exquisitely happy word-picture of the dainty genius of Washington Irving should grow to life at a mere Chamber of Commerce dinner. The sad fact remains, however, that Mr. George William Curtis spoke in this fashion of the genial author of The Sketch Book at the annual banquet of the Chamber of Commerce of the State of New York in November, 1890:

"Our sombre colonial writing was all sermon. It was not until 1809 that Mr. Buckminster, the orator of the Phi Beta Kappa at Harvard, said that the genius of our letters began to show signs of greater vigor; and in the same year a young man, who, as a boy, to escape the rigors of domestic religious discipline, used to drop out of a window of his father's house in William Street in the evening, and steal off to the play around the corner in John Street, published a book called Knickerbocker's History of New York; and in the gay genius of Irving, American literature escaped the sermon and came laughing into life. The winter of our long literary discontent was made glorious summer by this son of York. * * * What a sweet and blameless genius it was! It aroused no passion, no prejudice, no hostility. Irving was popularly beloved, like Sir Walter Scott, and I recall the amusing enthusiasm with which a party of Germans in Berlin, upon discovering that I was an American, exclaimed: 'Ah, we know full well your great general, Washington Irving' (laughter)! He touched our historic river with the glamour of the imagination. He invested it with the subtle and enduring charm of literary association. He peopled it with figures that make it dear to the whole world, like Scott's Tweed, or Burns's Bonny Doon. The belated wanderer, in the twilight roads of Tarrytown, as he hears approaching the pattering gallop behind him, knows that it is not his neighbor; it is the Headless Horseman of Sleepy Hollow. It is not thunder that we hear in the Katskill on a still summer afternoon, it is the airy game of Hendrik Hudson's crew that Rip Van Winkle heard. The commerce of New York may penetrate every sea, and carry around the world the promise of the American flag and the grandeur of the American name, and return triumphant with the trophies of every clime; but over their leagues of wharves and towering warehouses and far-stretching streets can it throw a charm, as fresh to the next century as to this, such as the genius of literature cast upon the quaint little Dutch town more than two centuries ago, and upon the river which is our pride?"

It will be at once apparent that it would utterly unsettle the balance of the reputation which the national after-dinner oratory now enjoys if such charming specimens of graceful eloquence as those of

Mr. Curtis were to be widely adopted as models, and so to keep the adjustment straight and to safeguard the vested rights of humor the full prerogatives of the cap and bells obtain distinct recognition even under the roof-trees of the Chambers of Commerce. The same body which had the pleasure of listening to Mr. Curtis had a characteristically playful interval two years previously, when the chair at its annual dinner was occupied by Mr. Charles S. Smith, the President of the Chamber, beside whom sat as a guest Professor Goldwin Smith, of Canada. Towards the close of an enjoyable evening there were loud calls for an address from Mr. Samuel Sullivan Cox. As no regular toast had been assigned to him, Mr. Cox hesitated to respond, but at length he cheerfully yielded, and proceeded to entertain his friends after this style:

"I have no particular toast to speak to, but in my emergency, I may select a subject fruitful to many a student, and especially as we are at the festive climax of our entertainment. In looking around this audience I feel like generalising and in a nebulous way, therefore, allow me to select as a subject that of Smith (laughter). We have two representatives of the family here to-night. Both are near to me. And, if you will look in the New York Directory, you will find 2,000 other names, members of the same illustrious family. As a politician, not unused, 'on the occasion sudden,' to cultivate the graces, I will never utter a syllable against the Smith family (laughter). Why, in the early days of Grecian history, they were demigods and founders of states. The only place where they were not is recorded in Samuel—the chapter and verse I will not recall, for I am not certain about them. But it will not hurt you to search for the verse yourself from Genesis to Revelation (laughter). The words are: 'There was no Smith in all Israel' (loud laughter). Whenever the children of Israel wanted to sharpen their spears or polish their plowshares or cutlasses, or close up the rivets of their armor, they had to go down to Tyre and Sidon, and call in the Smiths of that locality (laughter). The Smiths have progressed and multiplied; they are everywhere—including Canada (laughter). The Registrar-General of Great Britain says that in England and Wales there are three-quarters of a million of Smiths. Oh, sir, it is a great family (laughter). In the early chronicles of Norseland, it is said, the Smiths were honored by being admitted to the royal presence. They drank mead with the king. I never saw a Smith in my life that would ever refuse to take a drink (roars of laughter in which President Smith and Professor Goldwin Smith heartily joined). It mattered not what kind of liquor (laughter).

But where the Smith family predominated in any country, liberty also triumphed—commercial, personal, and public liberty (cheers). The age of iron was the age of the Smith and the age of iron has always ruled (cheers)."

That piece of rolicking banter may, perhaps, allow us to pair off the Smiths of Mr. Cox's fancy with the Washington Irving of Mr. Curtis's. If, however, something more is required on the humorous side to equalise the scales, there is no lack of material with which to bring the beam level. The apology of Mr. Joseph Choat, for instance, for not delivering a serious speech on the occasion of one of these annual dinners of the New York Chamber of Commerce might well be used in this connection. The toast which had been entrusted to him was couched in these words, "The Bench and Bar—blessed are the peacemakers," and it is little wonder that when the chairman announced the text from which Mr. Choate was to speak there was much laughter. By the way of prelude Mr. Choate said:

"I received this sentiment yesterday with an intimation that I was expected to respond to it. I had prepared a serious and sober essay on the relations of Commerce to the law—the one great relation of client and counsel (laughter)—but I have laid all that aside; I do not intend to have a single sober word to-night (laughter). I do not know that I could (laughter). There is a reason, however, why nothing more of a sober sort should be uttered at this table; there is danger that it would increase, by however small a measure, the specific gravity of the Chamber of Commerce of New York. Certainly nothing could be a greater calamity than that (laughter). At an hour like this, sir, merchants, like witnesses, are to be weighed as well as counted; and when I compare your appearance at this moment with what it was when you entered this room, when I look around upon these swollen girths and these expanded countenances, when I see that each individual of the Chamber has increased his avoirdupois at least ten pounds since he took his seat at this table, why, the total weight of the aggregate body must be startling indeed (laughter); and as I suppose you believe in a resurrection from this long session, as you undoubtedly hope to rise again from these chairs to which you have been glued so long, I should be the last person to add a feather's weight to what has been so heavily heaped upon you (laughter)."

It is a worn-out truism by this time that the later agencies of modern enterprise have wonders standing to their credit which would transfix our forefathers with amazement. Human curiosity, as a rule, moves within narrow limits, and it has a tendency, therefore, to

concentrate itself exclusively for the passing moment on a couple of the newest things in sensation. An attention, consequently, that is inclined to ignore everything nowadays which may be unconnected with Marconi's marvels, or submarine cruisers, or the involved mechanism of the latest air-ship, stands in need occasionally of being recalled to some of the other wonders I have indicated. May I not claim that the after-dinner speech of America is one of them? It has, as we have seen, transformed a Puritan celebration into a festival of merriment, and brought it within the bounds of possibility to associate mirth with a Chamber of Commerce dinner. These, it must be conceded, are in themselves remarkable achievements. But its record does not end here. It can boast the further distinction of having lured into the sphere of its influence, and bent to its undespotic sway, the stolid and phlegmatic Dutchman, who has now become, under its quickening fosterage, as frivolous as his most mercurial neighbor. The modern representatives of the Van Corlears, the Harden Broecks, and the Van Kortlandts, of whom old Diedrich Knickerbocker wrote so picturesquely and so affectionately, have fallen away sadly—and the fact cannot be screened—from the early habits of New Amsterdam. It may be remembered that our veracious old chronicler, lingering with reverence on the character of Governor Van Twiller as he administered the affairs of the infant settlement, tells us that "so invincible was his gravity that he was never known to laugh, or even to smile, through the whole course of a long and prosperous life"; and, speaking elsewhere of the Governor's fellow-colonists, the historian assures us that "they were averse to the exercise of the tongue and the consequent exercise of the brains—certain it is that the most profound silence was maintained." As applied to the descendants of Governor Van Twiller and his compatriots such language has become obsolete. Silence has given way to prolific speech and immobility of demeanor to the very abandonment of gaiety.

Perhaps President Roosevelt cannot be called in full support of this statement in view of his admission at a New England Society dinner in Brooklyn in December, 1898:

"The gentleman on my right [said Mr. Roosevelt] with the unmistakably Puritan name of McKelway, in the issue of the Eagle to-night alluded to me as a 'Yankeeised Hollander.' I am a middling good Yankee. I always felt at these dinners of the New England Society, to which I come a trifle more readily than to any other like affairs, I and the president of the Friendly Sons of St. Patrick, who is also in-

variably in attendance, represent, as you would say, the victims tied to the wheels of the Roman chariot of triumph. You see I am half Irish myself, and, as I told a New England Senator with whom I am intimate, when he remarked that the Dutch had been conquered by the New Englanders, 'Well, the Irish have avenged us.' "

Nevertheless, in spite of his Irish blood, the Dutchman of New York claim President Roosevelt as their kinsman, and at the annual dinner of the Holland Society of that city, in January, 1896, he was called on to respond to the toast of "The Hollander as an American." The laughter and applause which greeted his opening remarks showed how completely the later Dutchman had cut himself adrift from the taciturnity of Governor Van Twiller's day. The report of these remarks runs in this way:

"I am more than touched, if you will permit me to begin rather seriously, by the way you have greeted me to-night. When I was in Washington, there was a story in reference to a certain President, who was not popular with some of his own people in a particular Western State. One of its Senators went to the White House and said he wanted a friend of his appointed postmaster of Topeka. The President's private secretary said, 'I am very sorry indeed, sir, but the President wants to appoint a personal friend.' Thereupon the Senator said, 'Well, for God's sake, if he has one friend in Kansas, let him appoint him' (great laughter). There have been periods during which the dissembled eulogies of the able press and my relations with about every politician of every party and every faction have made me feel I would like to know whether I had one friend in New York, and here I feel I have many (great applause)."

In this art of the after-dinner speaker, the art of pointing what he may happen to be urging by a happy story, the present occupant of the Presidential chair has an enviable reputation. But it may be said that Mr. Roosevelt gets his sense of humor from the Irish, and not from the Dutch side of his family. Even if it were so, it would not destroy the fact that the Dutchman in America is quite up to date both as an after-dinner orator and as one who can appreciate and relish a racy incursion into humor. At the dinner of the Holland Society, at which President Roosevelt spoke, the chair was occupied by a sound, orthodox Dutchman, Dr. D. B. St. John Roosa, who, in replying to a question of his own in his opening speech, "What are the Dutch?" answered: "Why, we are the salt of the earth! We do not pretend to be the bread, and butter, and cheese, but we are the

salt." That the speech containing this question and answer was neither dull nor heavy, and that the company was anything but phlegmatic, is evidenced by the report, which is punctuated as many as twenty-one times by "laughter" and "great laughter." Again, the spirit of wild hilarity most certainly never sulked or lagged lazily behind when coaxed by Dr. de Witt Talmage at an American dinner-table and yet the doctor was able to give this account of himself at one of the celebrations of the Holland Society: "There is in my veins a strong tide of Dutch blood. My mother was a Van Nest, and I was baptized in a Dutch church and named after a Dutch dominie, graduated at a Dutch theological seminary, and was ordained by a Dutch minister, married a Dutch girl, preached thirteen years in a Dutch church, and always took a Dutch newspaper." That a man with such antecedents could deliver a speech crammed with laughter-provoking passages is conclusive proof, to my mind, that the American-Dutch temperament of to-day differs vastly from that pictured for us by our gracious old friend Diedrich Knickerbocker.

So universal has the fashion been set in America in this matter of public dinners, so anxious is everybody to be in the fashion, and so exacting has the popular taste become in its demands for super-excellence in the consequential speeches, that quite as much tact and artifice of resource must be displayed in arranging the details of one of these functions as we find an aspiring social hostess giving on this side of the water to the engagements of the artistes for an ambitious "At home," or as the pushful promoters of some gorgeous bazaar employ in securing exalted patrons who are likely to prove efficient as decoys. In the first place the societies which indulge in an annual feast, with an extra one occasionally thrown in, are so numerous, and the rivalry between them is so keen, that the task of providing an attractive programme has grown to be a fine art. Every element in the Commonwealth which can associate a particle of sentiment with its existence, every group in which a mutual interest links together its constituent parts, seems to think it the correct thing to organise a society, or a club, and to eat a special yearly dinner. The names of all these festive bodies make up a formidable list. We have New England Societies, Holland Societies, Southern Societies, State Bar Associations, Sons of Revolution, Friendly Sons of St. Patrick, Confederate Veteran Camps, St. Andrew's Societies, Papyrus Clubs, Lotos Clubs, Sunset Clubs, and, of course, Republican and Democratic Clubs without number. Infinite pains are taken by each of these to

gather the cream of after-dinner oratory for its own special banquet. Ample time—a month, or even more—is given to consenting speakers, and in that period the orator is expected to learn his part and give it adequate rehearsal so that on the eventful night he may present his mosaic in light comedy with all the finish and ease of an Edward Sothern or a Sir Charles Wyndham. Equally nice attention is paid to the texts of the toasts to be proposed. These are polished with something like the fine skill with which the lapidary cuts his diamonds, and the nearer the polished texts can be made to approach an epigram the more they are prized. As these toasts may number over a dozen for the one occasion, and as the eloquence they evoke is prolonged, as a rule, much beyond the midnight hour, they are generally found to formulate some airy abstract sentiment or proposition which in its nature is suggestive of crispness in reply. Here are specimens of the texts which supply the motive for many of the speeches of which I am writing: "The Press—right or wrong: when right, to be kept right; when wrong, to be set right"; "Truth and Trade: those whom God hath joined together let no man put asunder"; "The Responsibility of having Ancestors"; "The Debt each part of the Country owes to the Other"; "Unsolved Problems"; "The Oldest Inhabitant—the Weather of New England," the last toast being responded to in characteristic fashion at a New England Society dinner by Mark Twain.

The marvel is that where so many dinners are eaten and so many speeches delivered there is such an absence of staleness and sameness. The explanation, however, lies in the fact that good stories thrown forward, with accurate judgment, as light skirmishers are usually to carry back with them the palm of victory. But these skirmishers must have none of the stiffness of veterans. It would, of course, mean ruin to the reputation of an after-dinner orator if he ventured in any company to palm off, as fresh to the ranks, the seasoned anecdote which had already borne the brunt of active service. Knowing this, the man who has a toast entrusted to him is careful to pay reasonable regard to the necessity of only calling stories to his aid which bear the appearance of being new, and so long as he takes this precaution he is certain to get the credit of originality. There are a few exemptions from this rule. Being carefully labelled as neutral ground, satire, for instance, at the expense of the politician, is an evergreen quantity at these dinner-tables. Like the figure of Aunt Sally on a fair green, he is there for anybody to take a cheap shy at him. One gentleman spoke of an electoral campaign, which had just closed,

as covering a time "when politicians were husbanding truth with their wonted frugality and dispensing fiction with their habitual lavishness." In another case a public man was congratulated on his advocacy of a certain policy which, unlike other policies, presumably, "has as its essence the conduct of public affairs on the basis of the decalogue." At a third dinner a gentleman, giving his playful estimate of some American politicians, told the story of one of them who went out for a long swim. "All at once a shark, a man-eater, was coming the other way, and swam up squarely in front of him. They eyed each other for a moment, and then the shark—blushed and sped away." The proverbial jealousy between many of the American cities is a further topic that may be perennially used without risk if it is treated in such a way as to gratify the local vanity. It was, of course, a New England Society orator who said that if a hard fate had not compelled the New Yorkers to be stock-dealers and millionaires at the same time, they might, amongst other things, have been "manipulating their shares, with the aid of plough-handles, watering their stock at the nearest brook, and might have been on speaking terms with the Ten Commandments, and have indulged a hope of some day going to heaven, and—possibly to Boston." It was the theory of a New Englander that when Chicago was destroyed by fire the people of that town were saved from any considerable loss by heavy insurances which had been effected in New England.

"I chanced to be in Chicago [said this gentleman at a dinner board to a company of fellow New Englanders] two or three days after the great fire of 1871. As I walked among the smoking ruins, if I saw a man with a cheerful air, I knew that he was a resident of Chicago; if I saw a man with a long face, I knew that he represented a Hartford Insurance Company. Really the cheerful resignation with which the Chicago people endured the losses of New England did honor to human nature (laughter)."

We have it on the authority of a brilliant master of the art of after-dinner speaking that platitudes are essential adjuncts to the construction of a speech, and, that being so, repetition, more or less, can scarcely be avoided. James Russell Lowell once enumerated what he called "the ingredients of after-dinner oratory." "They are," he said, "the joke, the quotation, and the platitude; and the successful platitude, in my judgment, requires a very high order of genius. On the same occasion Lowell remarked: "I must say that I am one of those who feel the difficulties of after-dinner oratory more keenly the more

after-dinner speeches I make." "There is but one pleasure in life," said Charles Dudley Warner, the author of "My Summer in a Garden," "equal to that of being called on to make an after-dinner speech, and that is not being called on." A happy illustration of the different feelings that must be experienced by the man who has to make on of these speeches and those who have only to listen was given by Marion J. Verdery at an annual banquet of the Southern Society of New York, over which Mr. John C. Calhoun presided. At the outset of his speech, in replying to the toast of "The South in Wall Street," Mr. Verdery said:

"Two old darkies, lounging on a street corner in Richmond, Virginia, one day were suddenly aroused by a runaway team that came dashing towards them at break-neck speed. The driver, scared nearly to death, had abandoned his reins and was awkwardly climbing out of the wagon at the rear end. One of the old negroes said, 'Brer' Johnson, sure as you born man, de runaway horse am powerful gran' and a monstrous fine sight to see.' Johnson shook his head doubtfully and then replied philosophically, 'Dat 'pends berry much, nigger, on whedder you be standin' on de corner obsarvin' of him or be gettin' ober de tail-board ob de waggin'.' And likewise it strikes me that any keen enjoyment to be gotten out of after-dinner speaking is peculiarly contingent—''pendin' berry much on whedder you is standin' off lookin' on, or gittin' ober de tail-board of de waggin'.' "

In reality, however, the risky experiment of "climbin' ober de tail-board" does not seem to carry many terrors with it. Notwithstanding the responsibility of the position, the anxiety of preparation, and the worry it must cause to search successfully for the new joke and the apposite quotation, and to awaken the necessary amount of genius which is required to invest the platitude with proper pomp and circumstance, it would appear that most Americans take the same view of an invitation to respond to a toast as that taken by ex-Senator Edward Oliver Walcott, of Colorado, when he was asked to speak at a New England Society banquet in New York.

"It was with great diffidence [said Mr. Walcott on the night of the dinner] that I accepted the invitation of your President to respond to a toast to-night. I realized my incapacity to do justice to the occasion, while at the same time I recognized the high compliment conveyed. I felt somewhat as the man did respecting the Shakespeare-Bacon controversy; he said 'he didn't know whether Lord Bacon wrote Shakespeare's works or not, but if he didn't he missed the greatest opportunity

of his life.' As a rule, when a man is paid the compliment of being requested to reply to a toast at one of these dinners, he is immediately seized with a desire to 'write Shakespeare.' "

The fashion set by bodies of such high social standing as the New England Societies, the Sons of the Revolution, and the Southern Society, is faithfully imitated by every organization of lesser note. They all produce their after-dinner orators. And the budding, undeveloped Mark Twains, and Chauncey Depews, and Joseph Choates are not left to grope blindly in the dark after any undisciplined gift of eloquence which they may happen to possess. As in Great Britain there are innumerable guide-books to the Civil Service and the legal profession, so in America there are many varieties of primers and expositors, all of them explaining most elaborately the accurate method of proposing and responding to a toast. It is not given to everybody, of course, to achieve a brilliant reputation. Some of the young aspirants turn out to be, if not mute, at all events, inglorious Miltons. Of many of them it might be said, as Sheridan observed of Lord Lauderdale—a joke in his hands is no laughing matter. But when the harvest has been threshed and the chaff winnowed from the grain we find a rich asset in material left behind to provide healthy and enjoyable intellectual fare for the American people. The elements of vitality being as distinctly active in a good comedy as they are in a serious melodrama, it is in no way remarkable that of the better class of after-dinner speeches a great number have taken their places in the permanent literature of the country. The choicest position in the leading pages of the foremost American newspapers is at all times open to the latest achievement of those who are regarded as "old Parliamentary hands" in the domain of post-prandial eloquence, and it is only recently that the New York dailies gave their columns up cheerfully to a detailed record of one continued course of light and pleasant fooling which followed a dinner given at the Metropolitan Club by Colonel George Harvey, president of Harper Brothers, to Mark Twain on the occasion of the sixty-seventh birthday of the American humorist. No orator who has caught the ear of the American public by his brillancy at the festive board or on the lecture platform dreams of issuing his addresses in book form without including his best after-dinner speeches, while in a superb work entitled "Modern Eloquence," published some little time ago in ten volumes by Messrs. John D. Morris & Co., of Philadelphia, no less than three of the largest volumes are devoted to the bright things that have been said in honoring the di-

verse sentiments which have ornamented the toast-lists of banquets held in Delmonico's and elsewhere. The conviction may be allowed that in a country where life is driven at the highest pressure, where trusts, and "rings," and "corners" must do anything but conduce to mental tranquillity, where the fear of any encroachment on the Monroe doctrine must be perpetually "getting on" people's nerves, it is well that the after-dinner speech has assumed the proportions of a national possession. So long as it manages to hold its own in that position the gaiety of the nation can never be altogether eclipsed.

DANIEL CRILLY.

THE ENCHANTED ISLE.

THERE is an island in the sea,
  And in that isle a castle stands.
Fair are the hues of flower and tree
  That grow along its golden sands.

And o'er that isle the soft air blows
  Its sweetest odors to and fro;
And on the tide that round it flows
  Strange ships at times do come and go.

Quaint caravels of olden times,
  And argosies from ancient lands,
Laden with gems of sunny climes,
  From Asia's mines and Afric's sands;

With costly stuffs of Samarcand,
  And rich perfumes of Araby;
With curios of every land,
  And hidden treasures of the sea.

To fairy gales their sails are set;
  For whether lives or dies the breeze,
Onward the ships are wafted yet
  Over the glassy summer seas.

And in the castle old and gray
  A grim knight dwells in lonely state;
And on her lord, by night and day,
  A single servitor doth wait.

A maid all radiant to the sight;
  With hands that shame the snow-drop's hue,
And eyes as liquid and as bright
  As flowers yet wet with morning dew.

Her golden tresses, loose and free,
  No brightly glittering gems bedeck,
But fall, in sweet simplicity,
  In silken curls about her neck.

None of the fabrics rich and rare
  Brought by those ships her form adorn;
For all the treasures which they bear
  She only hath an eye of scorn.

And when the knight, in coaxing mood,
  Would tempt her most unwilling eyes,
With downcast look the maid hath stood,
  Or sadly turns her head, and sighs.

So sweet her face, and meek her air,
  So pure the light within her eyes,
The maid might seem a spirit fair,
  Or angel in a human guise.

But when, with loving look and word,
  To nobler thoughts and softer moods
She seeks to woo her stern old lord,
  He only frowns, and darkly broods.

Nor youth nor beauty charms his eye,
  Nor word of love inflames his breast;
Not such as those his want supply,
  Or tranquillize his deep unrest.

Yet in his sleep the knight will smile,
  And in his dreams oft mutters he:
"To-day to this enchanted isle
  Will come that ship upon the sea!"

And often at the even-tide
  Alone he strolls upon the shore;
Stops where his ships at anchor ride;
  Counts and recounts them, o'er and o'er;

Still one is missing, which he deems
  Fairest and bravest of them all;
The splendid vision of his dreams
  He marks not, where they rise and fall.

And on the castle's airy height
  He oft will silent watch and wait
From early morn till fall of night,
  Then sadly sigh, "It cometh late!"

And then, in tones of mild reproof,
  The maid points out another way,
But to her words in his behoof
  He only makes her answer—"Nay!"

And all the while they come and go—
  Those ships—still burdened with their stores,
And on the infatuate knight bestow
  Their golden freights from foreign shores.

And though the treasures gathered there
  In rich profusion round him lay,
And those each coming ship doth bear
  Increase his store from day to day,

Yet from his turret chamber high
  His eager gaze o'er ocean roams,
Still doomed to watch with wistful eye
  For that one ship which never comes.

T. H. FARNHAM.

OUR CONTEMPORARIES.

An analysis of the contents of the principal military periodicals, systematically classified under a few general heads for the convenience of the reader and student, comprising extracts and comments, in which special attention is given to the most important and valuable articles.

ORGANIZATION, ADMINISTRATION AND MOBILIZATION.

1. Cavalry Bridge Train.—*Kreigs. Zeit.*, 1.
2. The Russian Machine Gun Companies.—*Kriegs. Zeit.*, 2.
3. Promotion by Selection (3 articles).—*A. and N. Jour.*, Apr. 8.
4. Selection as a Stalking Horse.—*A. and N. Gaz.*, March 4.
5. The Army's Influence on Society.—*Jour. M. S. I.*, May-June; *A. and N. Jour.*, May 6.
6. Artillery Corps.— *Same*, March 25.
7. The Department of the Navy.—*Proc. Nav. Inst.*, March.
8. The Founder of the New Navy.—*Same.*
9. American Naval Policy.—*Same.*
10. The Organization of an Army.—*Jour. Cav.*, April.
11. How Many Men are Needed in Coast Artillery.—*Jour. M. S. I.*, May-June.
12. Accountability for Public Funds and Property.—*Same.*
13. The Artillery Officer.—*A. and N. Gaz.*, March 11.
14. The Future of the Royal Engineers.—*Same*
15. The Extension of the Home and Foreign Service Armies.—*Same.*
16. The Paucity of Officers.—*Same*, Feb. 25.

The *first* of these articles describes some of the bridge trains attached to the Cavalry Squadrons in European armies with a view to making them more independent in the field, with special reference to the new Herbert system introduced in the Austrian army.

Such a train is carried on three wagons, and can be utilized to construct a bridge about 60 feet long and 8 feet wide, or, by using the boats as ferries, in one trip 55 cavalrymen fully equipped can be carried over, or 66 un-equipped, or 36 cavalrymen each with his horse

equipments, or 72 horse equipments, or 2 guns and limbers (without horses) and 14 men, or 2 caissons and 10 men, or 6 horses (without equipments) and 6 men.

The system appears to be one of the best in use to-day.

The *second* article concerns the latest machine gun companies in Russia, four of which were organized in Europe and one in Asia, in 1901, and after four years of experience their organization finally determined.

A company comprises 5 officers, 119 men and 56 horses. Only officers, first sergeant and trumpeter are mounted. The guns are Maxim machine guns carried on pack animals, and each company has 7,000 rounds of ammunition. The men are all armed with rifles and bayonets.

At Liaoyang, on August 17th and 18th, 1904, one of these companies had an opportunity to fire on a Japanese mountain battery coming into action, and to defend the flank of a division. On the two days 26,000 rounds were fired, and the company lost 30 per cent. in killed and wounded. The commander received the highly-prized order of St. George for his conduct.

The *third* constitutes a series of articles on Promotion by Selection, which appear to express the Army view on the subject:

"No head of a department at Washington is more highly thought of by the line of the Army than is General Crozier, none more highly respected. All his views are listened to with respect, and it is felt that in him the Service has a most progressive, up-to-date officer. It is with regret, therefore, that we find him fathering any such scheme, as we are confident the result of such would not be a benefit, but a decided injury to the Service.

"The two principal arguments brought forward to bolster up the claims of the selectionists are the system of promotion, or rather of selection, of cadet officers at West Point, and the usual system of promotions followed by railroads and other big corporations in the United States. Against the bare principle of promotion by selection there can be no argument, as the Journal wisely contends. But so long as human nature remains fallible, so long as different men hold different views, the application of such a principle in our Service must work injustice to the big majority of our officers and absolute injury to the Service. * * *

"I agree with your correspondents who claim that the present laws if rightly enforced are sufficient to keep our Army up to the

highest state of efficiency. The complaint is made by the selectionists that boards cannot be found that will carry out strictly such laws, and that often notoriously inefficient officers are thereby promoted. If such contention be true, then how in the name of common sense can you find boards of officers who will rigidly perform the much more difficult and delicate duties that the proposed law will impose on them? Will there be some magic virtue in the new law that will confer infallibility on the boards convened in accordance with its mandates? The trouble is not in the present laws, but in the manner in which they are enforced, and the same authorities who will be called upon to enforce the new law must bear the blame if the present laws do not give the desired results. The little army that invested Santiago de Cuba in 1898 was, considering its numbers, one of the best the world ever saw. It was the product of seven years of the present system of promotion. Whatever shortcomings were then developed were in the staff departments and among the general officers, both products of the system of selection. * * *

"The chief difficulty the man who sits in the seat of authority has in dealing with questions affecting personal interests is in ascertaining the facts. However honest he may be, and however sincere in his purpose to do exact justice, he is always in danger of acting upon information and expressions of opinion coming from interested sources, or of mistaking the insistent declarations of those who have most ready access to his ear as the voice of public opinion. The skilled politician who keeps 'his ear close to the ground' may be able to ascertain the will of his constituents, but the man who strives to learn Service opinion must always bear in mind the fact that in dealing with those having authority over them, the rule of the military services is not to speak until you are spoken to. * * *

"In reply to the question as to whether they are in favor of promotion by selection ninety-three per cent. of the officers answer 'no.' The remaining seven per cent. answer 'yes,' with various qualifications suggested by the doubt as to the possibility of securing impartial selections. About one per cent. favor the plan of selection formulated by General Crozier. A considerable number recommend elimination, in case a change in the present method of promotion is decided upon; others approve of the establishment of a distinguished service list."

The *fourth* article is of special interest in this connection, as it presents the views of our English cousins on the same subject:

"We recently heard in the House of Commons an expression, from the Minister of State responsible for the efficiency and welfare of the

Army, of his belief that the Selection Board, as a part of the new organization, and therefore as a credit to the War Office, has given to the officers and men of the Army an assurance that recommendations for promotion will be influenced by no other considerations than the best interests of the Service. We are quite sure that Mr. Arnold-Forster entertained no doubt as to the truth of what he said, but we can assure him, nevertheless, that if he will inquire a little more carefully he will find that such is far from being the case. The plain truth is—and the Army Council cannot realize the fact too soon—that the Army is at the present time by no means content with the treatment recently meted out to its officers. There is a strong belief that favoritism behind the 'stalking horse' of 'selection' is operating to the detriment of deserving officers, and that promotion is not always conducted with a single eye to the good of the Service. The British officer is not the man to begrudge another his good luck nor to envy him the reward of his good service. All he asks is a fair field and no favor. He demands no more than simple justice. But nothing can be more exasperating, to an officer who has given the best years of his life to the Army, than to find himself superseded by a junior of less experience and with a poorer record of service.

"When 'selection' reaches far down the list, and brings up a man who has nothing more to recommend him than the desires of influential friends for his advancement, a grievous wrong is done which reacts disastrously upon the whole body of officers of the Army. We have correspondence before us which shows how deep is the feeling of disappointment and resentment now prevailing at the unfair treatment meted out within recent times to distinguished and meritorious officers, who have been passed over and superseded. * * *

"There is a particular regiment to which recently an officer of twenty-one years' service was transferred from another regiment as second in command over the heads of four senior majors, all of whom had more than twenty-three years' service, most of them with war records to their credit, while one of them had been through four different campaigns, had been mentioned in despatches, and had done excellent staff service. This officer, in particular, was specially fitted for command, and that he should have been passed over is nothing less than a scandal, whatever may be the merits of the officer appointed in his place. Such things are heart-breaking to those who have served loyally and well, and have given the best years of their lives to the Crown. They surely, as our correspondent says, have a right to regimental promotion when it comes, and should not be subjected to the

chagrin of finding themselves superseded by juniors whom the War Office is wishful to push on.

"There is no desire to withhold or deny the reward of merit truly won, nor the least wish to secure the promotion of officers who are unfitted. * * *

"All that officers ask is even-handed justice. Theirs is a modest claim. They demand no more than what is the right of every citizen, which certainly should not be denied to the officers of the British Army."

The *fifth* article relates to a subject of general interest to the country at large.

"To many the superscription of this article may come in the nature of a surprise, for while the people of the United States are not inappreciative of their fighting forces, they have not as yet been educated up to the point of regarding them in the light of agencies of social improvement. When we consider that the soldier's sphere of action is ordinarily so remote as to preclude anything like intimate contact or association with the great mass of the people, it is not surprising that such should be the case. * * *

"The army is an expensive institution whose periods of active service are, happily, separated by longer periods of peace. Its maintenance during such periods of military inactivity is a question of political expediency which does not permit of argument. Its function during such periods cannot justly be characterized as one of passivity, for it is ever busied with careful, conscientious preparation wherein it can never hope to attain a permanent degree of perfection, but must content itself with the molding of raw material into more perfect manhood and distributing the results amid the ranks of society. * * *

"One of the most fortunate results of the events of the last seven years is that they have brought the people and the Army closer together. During the long period of peace immediately preceding the Spanish war, the Army was popularly regarded with languid interest if not with indifference. It was widely scattered among isolated posts where its organization, character and methods were beyond general observation, and while the average citizen, of course, knew that we had an army, he neither knew nor cared what or where it was, or what it was doing or could do. In his opinion it was a sort of necessary evil which he would gladly abolish if he could, but which he was willing to tolerate, provided it kept out of sight and didn't bother him. Peace and the great material prosperity of the country had made the people

indifferent to their military affairs, and save when the Army came into notice in its operations against the Indians or in restoring order to communities terrorized by mob rule, it was ignored and neglected. But with the outbreak of the Spanish war all this was changed in the space of a day. There was a long, loud, terrified cry for the Army. What everybody wanted to know was, had we an Army, where was it, what did it consist of, what was it capable of doing and for goodness sake when could it be made ready for service? The reply to these agonized queries was an overwhelming rebuke to the thoughtless and indifferent. The Army had been hard at work all the time. In spite of neglect and disfavor it had gone quietly ahead strengthening its organization, improving its methods and training itself to the tasks of war, so that when it took the field it was, man for man, equal in discipline and efficiency to any army in the world. It was ready for business the very moment it was needed, and the people discovered, all of a sudden, that the United States Army was a very real institution and a most excellent thing to have on hand."

The *sixth* article relates to the prospective chief of artillery and the proposed new organization of the Field artillery into regiments:

"Our announcement last week that the President is to appoint Col. Samuel M. Mills, Art. Corps, to succeed Gen. J. P. Story as Chief of Artillery, when the latter retires because of age, Aug. 25, was the first knowledge Artillery officers generally had that a selection for this important position had been definitely made. There were many candidates, and among them lieutenant colonels were prominently mentioned. Judge Advocate General Davis, of the Army, however, held that the selection must, under the law, be limited to colonels of Artillery. Colonel Mills is held in high esteem by the War Department and it is believed that his appointment will meet with general approval from the Artillery Corps.

"The President is taking much interest in the recommendation of Gen. J. P. Story, Chief of Artillery, that the Field Artillery be completely reorganized on a regimental basis. About ten days ago he addressed a letter to the Secretary of War asking certain definite questions relating to the Field Artillery and the proposition to give it a regimental organization. The letter was turned over to General Story for reply and a full report on the questions asked was made to the President. This brought forth another letter on the same subject from the President asking additional and more definite questions relating to the Field Artillery which has been sent to the General Staff for a

report. The President has closely followed the work done by the Japanese and Russian field artillery and has been impressed with the fact that this arm of the Service has played an unusually important part in the military operations in the Far East."

The next three articles, relating to the Navy, are most interesting and valuable. The first is the Prize Essay, written by Commander Bradley A. Fiske, and is well worth the careful consideration of the general public as well as the Navy and Army; the second is by Rear-Admiral Stephen B. Luce; the third is a defence of Secretary of the Navy William H. Hunt, as the true founder of the new navy.

The *tenth* article is a general one on the organization of an army, by Captain John P. Ryan, 6th Cavalry, and contains a clear statement of the purpose of each element of an army.

The *eleventh* is a well-considered article on the men needed in Coast Artillery:

The personnel assigned to the handling of a gun, its carriage and the ammunition service, is called the gun section. The gun section is divided into two principal detachments, each requiring a non-commissioned officer as its chief—the gun detachment for the maneuvering, loading and firing of the gun—the ammunition detachment for the service of ammunition. The gun section is commanded by the gun commander. The gunner is a member of the gun detachment.

	Enlisted Men.
The gun section for a mortar pit numbers	68
For a 12-inch disappearing gun	34
For a 10-inch disappearing gun	30
For an 8-inch disappearing gun	28
For a 6-inch disappearing gun	20
For a 5-inch rapid-fire gun	15
For a 4.7-inch rapid-fire gun	17
For a 3-inch rapid-fire gun	11
For a 6-pounder rapid-fire gun	9

"The efficiency of a battery is measured by the hits it is able to make in any given time. This ability depends, so far as the gun section is concerned, upon the rapidity and accuracy with which the guns can be loaded and fired, the rapidity and accuracy with which the gun can be laid from the information furnished by the range section, the intelligent care and rapidity with which the ammunition

can be handled, and, when the position finding system fails, the accuracy and rapidity with which ranges can be estimated. The estimation of ranges is properly the function of an officer, but all gun commanders and gunners should also be carefully trained in this work.

"All these functions require not only knowledge but practice, and, for high efficiency, long continued practice. The knowledge required of any one individual is not difficult to learn or to impart. Given a perfect position-finding service, a sustained rapidity of fire with a green gun section of one shot in four or five minutes, with a twelve-inch rifle on disappearing carriage, say after a week's training, would be considered good. Any regular twelve-inch gun section in the service to-day can maintain a rate of fire of one shot per minute; the best record is one shot every twenty-seven seconds for four consecutive rounds. Assuming the same conditions with mortars, a rate of fire of one pit salvo (four shots) every five or six minutes for the green section to one per minute for the constantly trained section is about what may be expected. It is the universal experience that even with organized and trained sections, after a winter's absence from actual drill, a month or more is required before officers are willing to even conduct target-practice, so much do rapidity and accuracy of service diminish for lack of actual drill. The daily practice of range sections is kept up throughout the year.

"Long-continued practice is essential to efficiency in all the elements of the tactical organization of coast artillery, that is, accuracy and rapidity of fire for each battery, and ability to concentrate and distribute fire quickly and with certainty. The information required on the part of individual enlisted men is not very difficult to acquire. The knowledge required of officers, particularly the fire and battle commanders, is much of it very difficult of retention; it is different in kind, but as great in amount as that of line officers of corresponding grades in the mobile army. Constant practice is the great essential. Without this constant practice no real efficiency is to be expected.

"To return to the question how many men are absolutely needed in a coast artillery organization in time of peace to secure a high degree of efficiency in war, the only safe answer is a complete complement for all the armament which it is proposed to use, and for the administrative service of this body. * * *

"In a fully manned mortar pit (four mortars) sixty-eight enlisted men are stationed. The area of the pit is only fifty feet by seventy feet, most of which is taken up by the mortars. There are three kinds of projectiles for mortars and eleven kinds of powder charges

—thirty-three possible combinations of ammunition. The rate of fire should be a salvo every minute, if desired. The target may be changed in the course of an engagement several times, necessitating a change of kind of powder charge and possibly projectile. While firing at the same target the projectile and powder will often change. Between discharges every man must leave the pit and return to his place. Smokeless powder has not been sufficiently developed to enable its use in mortars except for the larger charges. The danger of confusion in a smoke filled mortar pit has been repeatedly demonstrated at maneuvers, particularly at night. The danger of accident even when firing deliberately has frequently been demonstrated, only recently fatally at Fort Banks."

The *twelfth* article is an interesting article on a proposed simplification of money and property accountability, by Colonel H. O. S. Heistand, Military Secretary.

The *thirteenth* presents some interesting views of the British artillery officer and his trials:

"Among the officers of his Majesty's Army who are somewhat perplexed by the new order of things, are those of the Royal Artillery whose case is of special importance. We published last week a letter from the pen of an artillery officer of long experience, placed in important command, which laid bare some of the doubts and difficulties which confront his comrades. There has never been a time in which artillery officers have been so keen and enthusiastic or so scientifically trained as at present, or when they have been so well fitted to undertake their complex and important duties. * * *

"A very high standard of excellence is asked of the majors. But they may ask what is the reward for such excellence. Not 20 per cent. of them can ever rise to the rank of colonel, and few regimental officers can ever hope to become major-generals unless they leave the regiment when young and seek staff employment. As a matter of fact, if the list of major-generals be studied it will be discovered that already some 30 per cent. of those who have reached the generals' list have attained the rank in that way. Thus, those officers who look after their own interests have a certain temptation to take a step which does not directly tend to the efficiency of the Artillery. * * *

"In view, therefore, of the very great importance of the Artillery, and of the weighty issues that may hang upon the efficient training and proper use of the arm, we would most earnestly suggest to the

authorities that the whole subject of the pay and prospects of artillery officers should be subjected to consideration. The demands made upon officers are greater than at any previous time."

The *fourteenth* article presents the British Engineer officer in the same way:

"The Japanese have not been blind to the high value of this branch of their army, and have provided a larger proportion of Engineer officers than is found, we believe, in any other army. The great services of the corps of Royal Engineers in South Africa are well known. The total strength in officers and men with the colors was, on October 1, 1899, 8,262, of whom 694 were in Africa, and yet before June, 1902, nearly 7,000 officers and men had gone out to that country, exclusive of Militia and Volunteer Engineers. Testimony of the great work done by the corps was given by Lord Methuen, Sir Ian Hamilton, Sir Archibald Hunter, Sir Charles Warren, Generals Hilyard, Barton, Kelly, Kenny, Bruce Hamilton, Murray, and others. * * *

"All the evidence went to show the great efficiency of the Engineers and the high value that was attached to their services. * * *

"In view, therefore, of the high importance of the Royal Engineers in war, we must emphatically express our hope that there will be no such reduction of numbers as it is understood the authorities contemplate.

"* * * Moreover, the transfer of the submarine mining stations to the Admiralty must lead to the abolition of a number of Engineer appointments. But what we have to look to, however, is preparation for war, and to meet the great demand which will be made for Engineer officers when war breaks out. The next great campaign is likely to exhaust all our resources and reserves, and we cannot bring ourselves to believe that the reduction of a hundred officers of the Royal Engineers could be anything but disadvantageous to the Army."

The *sixteenth* article comes as a little of a surprise to us, and perhaps has some lessons for us too:

"Mr. Arnold-Forster has communicated to Sir Howard Vincent some particulars illustrating the great deficiency in the supply of officers for the Militia and the Volunteers—951 in the case of the former, and 2,768 in that of the latter. There is a serious deficiency of officers in the Regular Army also, which is of far graver consequence, and the subject is now engaging the attention of the Army Council. No question is more worthy of anxious and patient inquiry. Whatever

success we may attain in administrative reform, and whatever may be the good fruit of efforts to attract men to the Army, all will be valueless unless we are able to supply a sufficiency of well-trained and efficient officers. It is upon the commissioned ranks of the Army that the whole burden must rest. As we said recently, in enforcing the vast importance of creating progressively a Great General Staff, we have the whole teaching of history to prove that courage, numbers, and equipment are of no avail unless the troops are well led, and that the safety of the Empire must depend upon the knowledge and skill of the British officer. It is, therefore, disquieting to know that there is unmistakable evidence of a diminution of the supply—to discover that young Englishmen are not quite so eager to enter the Army as of old."

MILITARY EDUCATION AND TRAINING.

1. The Education of Army Candidates.—*A. and N. Gaz.*, Feb. 25.
2. Rational Plan of Athletic Training.—*Jour. M. S. I.*, May-June.
3. A Plea for the Adoption of the Revised Infantry Drill Regulations for the Army.—*Proc. Nav. Inst.*, March.
4. Simpler Commands in the Cavalry Drill.—*Jour. Cav.*, April.
5. The French Cavalry at Saumar.—*Same.*
6. The Training of Cavalry Horses.—*Same.*
7. Contrivances for Use in Horse-Training.—*Same.*
8. New Drill Regulations for Coast Artillery.—*A. and N. Jour.*, April 29.
9. Our New Infantry Drill Regulations.—*Jour M. S. I.*, May-June.

The *first* of these articles relates to the British Army, but is also of interest to us:

"A kindred subject to that discussed above is the education of candidates for the Army. Certain changes are now intended to be made in relation thereto, which, if persisted in, can hardly fail to disappoint the authorities and further increase their difficulties. We refer to the anomalous and altogether unnecessary instructions with reference to 'leaving' and 'qualifying' certificates, the provisions concerning which are likely to perturb also those who have sons destined for the Army. The course adopted by the authorities is so strangely inept, and, upon consideration, is found to manifest such complete ignorance of the true interests of the Army, that it is inexplicable, except upon the supposition that they have been influenced or sur-

prised by the strange prepossessions of individuals. None know better than they the necessity for a supply of intelligent, well-trained, and zealous candidates for the Army, of young men informed with originality, enterprise, and enthusiasm. It is not from the ranks of the wealthy that we must expect to draw men possessed with the right earnestness and the needful enthusiasms. From this source of supply have come many who have entered the Army for the sake of the position it offers and the amusements it affords. There are not a few brilliant exceptions, it is true, but Pall Mall itself has declared that the officers we require come from the professional classes, enjoying often but limited incomes, classes which supply the brains to the country, and from the families of those who for generations have given their sons to one or other of the Services. It was that such might find their career in the Army that the purchase system was abolished, and it was to encourage them that there has been so much talk about reducing the expense of Army life, while, at the same time, as a consequence, largely, of War Office procedure or inaction, it has gone up by leaps and bounds."

MILITARY HISTORY, STRATEGY AND TACTICS.

1. The War in the Far East.—*A. and N. Gaz.*, Feb. 28-March 11; *Mar. Rund.*, March; *A. and N. Jour.*, March 18.
2. Field and Siege Operations in the Far East.—*Jour. M. S. I.*, May-June.
3. French Views on Employment of Cavalry.—*Same.*
4. Surprise of the Tabor Bridge.—*Same.*
5. Cavalry in Modern War.—*Jour. Cav.*, April.
6. The Fourth Cavalry with General Lawton in Luzon.—*Same.*
7. From Texas to Dakota.—*Same.*
8. The First Act of the Last Sioux Campaign.—*Same.*
9. The Santiago Campaign of 1898.—*Same.*
10. Increasing Importance of Cavalry.—*A. and N. Jour.*, April 8.
11. Naval Work at Port Arthur.—*Same*, March 18.
12. Classes of Operations of the Continental Navy of the American Revolution.—*Proc. Nav. Inst.*, March.

The *first* of the above articles is utilized elsewhere in studying the strategy and tactics of the war.

The *second* is a notable article by one of our most prominent Engineer officers, Colonel W. R. Livermore. We quote a few of the most striking statements:

"The most interesting feature of the strategy of this campaign is the fact that Kouropatkin, holding the interior lines, was not able to fall upon any of the Japanese armies and destroy it in detail. A general like Napoleon might perhaps have done so if the movements of the enemy had been tardily conducted, but the conditions were very different from those of 1796 or 1814.

"Kuroki was never out of telegraphic communication with the other armies until the battle of Liao Yang, and Frederick Palmer describes the terrible feeling of confusion and desolation that this isolation produced.

"The superiority of modern firearms extends the front which an army can defend and the ridge of mountains that forms the backbone of the peninsula multiplied the number of defenders by four or five and it is hard to say whether we should regard all these operations as a strategical campaign or as a continuous battle over a front of more than a hundred miles.

"At the first glance it might appear as if Kouropatkin could have thrown all his forces on Kuroki and then turned upon Oku, but every Chinaman was a spy for the Japanese and a surprise was out of the question.

"Kuroki would probably have withdrawn and Oku forced his way up the railroad. If Kouropatkin had thrown all his forces on Oku, Kuroki would have been a dangerous enemy in his rear. * * *

"At the siege of Port Arthur the Japanese made use of seacoast mortars of 28 centimeter or 11-inch caliber. They are mounted on a carriage which recoiled on the chassis and far inferior to our 12-inch mortars. The shells which were loaded with Shimose powder weighed about 500 pounds, but the rate of fire was only about one round in eight minutes instead less than one minute.

"The field pieces used in the war must not be confounded with such quick-firing guns as the French, or as those with which the Americans and all the Europeans are now arming. The new gun takes up the recoil by a hydraulic cylinder and is brought forward by a pneumatic, or still better by a helicoidal steel spring. The gun moves back 50 or 60 inches on a carriage which remains absolutely still. These new guns can fire twenty rounds a minute; the Russian guns five or six rounds; and the Japanese four or five.

"The Russians' tactics have been based upon their experience in 1877-8, but the influence of Dragomiroff and other conservative officers have kept them from drawing such inferences from it as we have drawn. The Japanese appear to have rigorously copied the Germans.

They appear to have based their tactics on the war of 1870 and '71 and I think without making due allowance for the weapons they carried. They have, however, shown great skill in the use of field-artillery, especially in indirect fire and when no natural shelter was to be found they have improvised it by building screens heavy enough to afford protection against small arm and shrapnel fire. * * *

"It has been asserted by many who ought to know better, that this war has proved the folly of the conclusions that were drawn in Europe from the war in South Africa and shown that if soldiers are animated by desperate bravery, reckless of death and insensible of pain, they will go forward in spite of appalling slaughter, and by a liberal use of the bayonet transfix their feeble adversaries who have depended upon their firearms for defense. We know very well that such was not the experience of our Civil War and we know that the Europeans could not benefit from our experience until it was repeated upon the other side of the Atlantic, regardless of latitude. * * *

"Port Arthur, like Sebastopol, was not a regular permanent fortress, but simply a harbor defended by an old Chinese wall and many earthworks well-stocked with old guns and reinforced by modern guns taken from the fleet.

"For fifteen or twenty miles the country was fortified by earthworks or masonry works of the old form. Nothing like the girdles of detached forts that surround the cities of Europe. The high hills look strong but their slopes are rugged and cover dead spaces hard to reach from the forts that surmount them.

"The forts in modern Europe are also defended by steel cupolas which may be concealed from distant fire and are imbedded in vast masses of concrete. There has been no opportunity in this war to test the utility of these devices, and it must be remembered that the heavy 11-inch mortars cannot be transported by land as easily as they were by sea.

"In attacking a fortress armed with modern guns it has been evident since 1885 that the old method of sapping was utterly impracticable. One school of officers advocated the return to the method of a series of bombardments followed by rushes to places of shelter, and finally by assault.

"The loss of 25,000 men by the Japanese in two or three days is one of the penalties they have paid for their fidelity to the German school of General von Sauer. Some of us, however, predicted several years ago that the most promising method of attack was in approaches resembling the old parallels and boyaux in plan, but very different in

cross sections. The Japanese were finally driven to precisely this form which was intermediate between a sap and a mine."

The *third* article is a valuable study published by the German General Staff, which deserves careful study.

The *fourth* is an interesting study, by Mr. F. L. Huidekoper, from the original documents in Vienna.

The *tenth* is another valuable article:

"General von Einem, the Prussian Minister of War, recently delivered before the Budget Committee of the Reichstag a most important address on military matters, some points in which will be of great interest for American military men. One reason for the rather halting progress of military movements in the Far East, according to the Minister of War, is that neither army has at its disposal an adequate cavalry force. The fact that neither Japanese nor Russians have been able to get satisfactory results from their cavalry does not prove that cavalry is a useless and antiquated adjunct to the modern army, but merely that the Russians used their cavalry in a thoroughly wrong way, and that the Japanese did not have cavalry enough to be employed effectively. The Russians divided up their cavalry too much into small detachments; and, to a considerable extent, it is true that they are without cavalry at all in the proper sense of the term. A strong Japanese cavalry could have turned the defeat at Liao Yang into a rout, could have cut the Siberian railway, and perhaps have given a decisive turn to the war.

" 'Without our cavalry,' the minister said, 'we should have had no Sedan, and should have been unable to maintain the siege of Paris. We should, perhaps, have a still higher conception of the value of cavalry if ours had been well-drilled and had shown itself equal to requirements when we began the war of 1870. But in respect to organization, drill, arms and equipment, it was as ill-prepared as it was ill-informed about the tasks that would devolve upon it. It was only in the course of the campaign that it grew wings as the result of Moltke's ever-repeated motto in the General Staff: 'Cavalry far to the front! Reconnaissance!' He it was who had fully comprehended the task of cavalry, and incessantly argued for its employment. As early as August 14 he demanded that a cavalry division be sent across the Moselle below Metz. Such a demand at that time was an unheard-of thing, and no attempt was even made to carry it out. The cavalry had no pontoons, and was quite without experience in building bridges

or rafts, all of which belongs to the daily routine of our cavalry to-day. If Moltke's wishes had been followed, the doubts about the whereabouts of the French army, which were only solved by the battles of August 16 and 18, would have been cleared up in time. What would have become of the remnants of MacMahon's army if our cavalry division had not been artificially held back? Vinoy's corps could never have gotten from Mèziéres to Paris, if our cavalry had been so armed as to enable it to hold in check the French columns till the arrival of the Sixth Army Corps; and, without Vinoy, Paris could not have been held. These examples from the war of 1870-71 could be multiplied.' * * *

"To sum up then: The absolute fighting value of cavalry has been substantially reduced, and its operations have been rendered more difficult in many directions; on the other hand, its strategic importance and the scope of the tasks devolving upon it have been considerably increased, and important new avenues for successful work have been opened for it. Such are the effects upon cavalry of the recent changes in the art of war.

"Conclusions drawn from the war of 1870-71 are not correct, since the cavalry did not then accomplish, in many instances, what it should have accomplished, owing to lack of practice in reconnoitering, and in being handled in large bodies, not to mention its defective armament.

"The cavalry tasks of the future are of such far-reaching and decisive importance that final success in war may depend very largely upon their right execution. These comprehensive tasks, moreover, can only be performed successively through the employment of heavy masses of cavalry where decisive results are to be tried, or where they will draw off the attention of the enemy. Reconnoitering, so indispensable for the commander-in-chief, can only be carried out nowadays by giving battle, indeed by very serious cavalry duels. Efforts must be directed toward driving the hostile cavalry off the field, in order to make it possible to observe the movements of the enemy's columns. Our cavalry at Sedan succeeded in doing this without fighting, since the French cavalry was employed as reserves and was kept at the front turned away from us."

ARTILLERY.

1. Aiming by Telescopic Sight Compared with Aiming by Open Sight.—*Proc. Nav. Inst.*, March.

WARSHIPS.

1. The Old School and the new Policy.—*A. and N. Gaz.*, March 11.
2. The Naval Estimates.—*Same; Mar. Rund.*, March.
3. The Submarine Disaster.—*A. and N. Gaz.*, Feb. 25.
4. Coaling Vessels and Coaling Stations.—*Mar. Rund.*, March.
5. The French Naval Program.—*Same; A. and N. Jour.*, April 8.
6. Changes in the World's Navies.—*Mar. Rund.*, March; *Proc. Nav. Inst.*, March.

The *first* of these relates to the protected cruiser:

"In plain terms, the protected cruiser is no longer a type upon which the Admiralty care to rely, either as commerce protectors, for which they are too weak, or as scouts, for which they are too slow. By a swift process of nautical evolution the armored cruiser, with its superior speed and heavier armament, has been evolved, and the protected cruiser cannot survive. Regrettable it may be that the depreciation of the protected type was not grasped a little earlier, but that is no argument for its continued retention.

"The argument that other navies are retaining their protected cruisers is of no real importance, if it be admitted that our squadrons of armored cruisers are capable of driving all such into their ports; and this is the lesson of Port Arthur. As to numbers, we are now well ahead of all probable rivals in the output of armored cruisers; otherwise it had not been possible for the present Board to have advocated the postponement of one vessel included in the programme for the current financial year. Nor do we find any force in the argument that Admiral Togo would be glad enough to possess any one of the 14 cruisers enumerated by Admiral Fremantle. Possibly that is so now; but it was not the case at the beginning of the war, for the policy which is relegating these weak ships to remote anchorages is not discredited because Japan finds herself short of ships. The second indictment in his letter Admiral Fremantle has not developed, being content to assert that the reduction to cadres of our naval establishment at Jamaica, Esquimalt, Halifax, Trincomalee, and Ascension Island will tend to the diminution of reserves of coal, stores, and ammunition, 'and consequently of the potential energy of the Fleet on distant stations.' This is a serious allegation, and it is made in the teeth of Lord Selborne's assurance that all such minor bases are capable of being duly expanded in time of war. It need hardly be

said that we credit Admiral Fremantle with entire singleness of aim in thus condemning the new policy."

The *third* article is of especial interest:

"The public inquiry which the Admiralty instructed Captain Bacon to hold in connection with the lamentable mishap on board Submarine "A 5" has been closed, and the exact cause of the explosion determined. From the evidence of Captain Edgar Lees, Commander S. S. Hall, and the other witnesses, including two of the men who were in the ill-fated vessel at the time, it was not difficult to account for the disaster. The replies given by Dr. Boverton Redwood, a distinguished expert in explosives, especially petrol oils, to a series of questions put to him by Captain Bacon, can leave no doubt in anyone's mind that the investigation has served a most useful national purpose. Dr. Redwood has satisfied himself that the petrol installation in the submarine is such as to ensure the maximum of safety, that the regulations for ensuring safety are such that, if duly observed, such an accident could not possibly occur, and that the result of the inquiry tends to give increased confidence to those who are called upon to serve in the submarines. In view of these conclusions the finding of Captain Bacon, regrettable as it is, will hardly be disputed. He states that the explosion was caused by the presence of petrol vapor from a leak of liquid petrol at a badly packed gland of the petrol pump, and that the explosive mixture formed was ignited by sparks from the main motor brushes caused by attempting to move the motors electrically with a view to revolving the engine; and, further, that such a use of the motor was in flagrant violation of the regulations. The cause of the accident is thus determined, but it was not the purpose of the inquiry to fix the blame, and in view of the fact that the captain of the submarine is still confined to his bed by his injuries, it would be manifestly unfair to attempt to do so. That must be left for a later investigation. It is, however, most satisfactory to have had it demonstrated most clearly that the risks attending service in the submarines have been fully recognized, and that every possible precaution has been taken by the authorities to guard against them."

The *fifth* article concerns the battleships:

"France has been fully prepared for the shipbuilding programme which her new Minister of Marine, M. Thomson, has promised to bring forward next year, having been compelled to look seriously into the entire reorganization of the navy through the unfortunate results

of M. Camille Pelletan's well meant though ill-advised efforts to reform the marine. The crushing defeat of the Russian fleet has also induced the French Naval Department entirely to change their views concerning the respective values of powerful battleships and swift cruisers, The Engineer says. Before this change of view the 'new school,' with M. Lockroy at its head, fought against the battleships, and carried on an active campaign in favor of swift cruisers or commerce destroyers and submarines, under the impression that, as it was impossible to compete with England in battleships, it was, at all events, open to France to sink them with the new submarine craft and ruin the country by waging a war on commerce.

"M. Pelletan went still further, and created a type of cruiser, like the Guichen and Chateaurenault, in which everything was sacrificed to speed. As fighting units they have no value whatever, The Engineer thinks, and it is now generally admitted that the money spent upon them is absolutely lost. As these amateur efforts at creating a new marine were entirely in opposition to the views of the Conseil Superieur de la Marine, M. Pelletan was careful not to consult that body on any occasion. During his administration the Conseil, composed of the most distinguished admirals and naval architects, was practically a nonentity. Parliament has decided to change all this, and in M. Thomson the country has a Minister who has promised to act in accordance with the views of the Conseil Superieur de la Marine. France has had enough of the 'new school' of naval architects and reformers, and is anxious to return to the old traditions of a sound marine under the control of an experienced body. This change has undoubtedly been hastened by the palpable lessons of the war in the Far East. Victory has been on the side of the heaviest battleships. * * *

"The results of the Russo-Japanese naval battles have impressed upon the French Chamber the advisability not only of building heavily-armored battleships but of equipping them with the heaviest artillery. It is considered doubtful whether French artillery engineers are altogether working upon the right lines in an endeavor to get the flattest trajectory, in the belief that battles will be decided at a distance of 1,000 m. In the Far East the proportion of hits at much longer ranges was remarkable, and this proof of accurate firing has caused opinion to veer round in favor of big guns with the longest possible range.

"While the Minister has pledged himself to construct powerful battleships and armored cruisers of real fighting value, he is equally in favor of building up a flotilla of submersible boats. The policy of

building purely defensive submarines of very light tonnage and small range of action finds no favor with the present naval administration, which, in view of the experiments already carried out in France, and of the example of Great Britain in building heavier submersibles, is of the opinion that the only suitable type is the submersible capable of carrying out offensive operations. It is therefore fairly certain that the small submarines that have been cancelled will be replaced by submersibles of 200, 250, and even 350 tons. In the same way the torpedo boat is developing in the direction of bigger tonnage. This means that the submarines will take the place of the smaller torpedo boats, and that the first-class torpedo boats, as well as the destroyers, will be of much larger tonnage."

SMALL ARMS AND EQUIPMENTS.

1. Experimental Firing with U. S. Magazine Rifle.—*Jour. M. S. I.*, May-June.
2. The Trebley-Fosbery Automatic Revolver.—*Jour. Cav.*, April.
3. The Greble Bit.—*Same.*
4. The Service Bit, Curb Strap and Bridle.—*Same.*
5. In favor of the knife-bayonet.—*A. and N. Jour.*, April 8.

The *first* of these is an excellent article by Major W. C. Brow, 3rd Cavalry, from which we can extract only the following interesting table:

TABLE SHOWING RELATIVE EFFICIENCY OF THE U. S. MAGAZINE RIFLE, MODEL 1903, THE KRAG RIFLE AND KRAG CARBINE.

	U. S. Magazine Rifle, 1903.	Krag Rifle.	Krag Carbine.
Weight	9.09 pounds	10.65 pounds	8.0 pounds
Length	43.43 inches	48.9 inches	40.9 inches
Dist. between sights (leaf down point blank)	23.32 inches	24.3 inches	16.2 inches
Muzzle velocity	2,300 feet	2,000 feet	1,920 feet
Maximum range	4,781 yards	4,066 yards	4,016 yards
Weight of bullet	220 grains	220 grains	220 grains
Weight of charge	43½ to 44½ grs.	35 to 42 grains	35 to 42 grains
Powder pressure in chamber	49,000 lbs. per sq. in.	38,000 lbs. per sq. in.	38,000 lbs. per sq. in.
Calculated maximum energy of free recoil	18.33 ft. lbs.	13.66 ft. lbs.	14.92 ft. lbs.
Mean absolute deviation, 1,000 yards (Radius of circles of shots)	13.8 inches	14.9 inches	
Maximum height of trajectory, 1,000 yds	19.57 feet	28.57 feet	30.19 feet
Maximum height of trajectory, 2,000 yds	154.85 feet	227.58 feet	234.81 feet

The *fifth* article relates to the bayonet for this arm:

"After a careful inquiry, together with practical tests of various types, the special committee of the General Staff of the Army appointed to recommend a form of bayonet has reported in favor of the adoption for the U. S. magazine rifle, model of 1903, of a knife-bayonet in place of the present rod-bayonet. It is recommended that the bayonet be sixteen inches in length. This adds the six inches to the bayonet, lost by reducing the barrel of the gun from thirty to twenty-four inches. It is further recommended that the bayonet be of the type submitted by the Chief of Ordnance; the bayonet be carried in a scabbard, which shall be constructed of light material and be free from the rattling incident to the present scabbard. The bayonet to be made of a quality of steel which will take an edge, and to be kept sharp at all times; the front of the blade to be sharpened throughout its entire length, and the back to a length of five inches from the point of the blade; the scabbard to be constructed so as to preserve the sharp edge. If this recommendation is approved the only change necessary in the Infantry Drill Regulations is to keep the present method of fixing bayonets, with which the troops are already familiar and which is contained in the appendix.

"Lieutenant-General Chaffee, Chief of Staff, in a note communicating the report of the committee to the Secretary of War, says: 'The commission does not find that the rod-bayonet with which our new rifle is furnished is fully answering the purpose of the bayonet. In fact, when adopted it was known not to be an efficient weapon for hand-to-hand fighting, the general belief being, that in modern warfare there was likely to be so little of hand-to-hand conflict as to justify the practical elimination of the bayonet as an instrument of offense or defense. The reports, officially and unofficially, of recent hand-to-hand conflicts in the war in the East, have revived consideration of this question and the possibility, and in fact probability, that in future wars night operations particularly may be forced on all armies, thus increasing the liability to personal contact, and hence, too, the apparent necessity of a useful bayonet. I am of opinion also that we should no longer attempt a combination tool, viz., bayonet and entrenching tool, but that we should decide finally that the troops be furnished with both implements, each efficient for its own purpose and separate and distinct. This the committee recommends. The bayonet recommended is of the style at present issued to the army for use with the Krag rifle, differing only in that its length is increased by six inches.

On examination it is found to be a serviceable bayonet, efficient in every way needful for such a weapon.'

"At the outset of its report the committee agreed from the evidence before it that the use of the bayonet in the Russo-Japanese war by both combatants shows conclusively that the bayonet is not a weapon of the past; that the introduction of night attacks on a large scale as a feature of nearly every battle of this war, increases its relative importance. It was also agreed that the bayonet should be designed for use as a bayonet and for no other purpose, and should be a fighting weapon only."

MILITARY HYGIENE.

1. The Teaching of Military Hygiene.—*Jour. M. S. I.*, May-June.
2. Surra.—*Jour. Cav.*, April.
3. A Proposed new Health Record.—*Proc. Nav. Inst.*, March.
4. Wounds in the Russo-Japanese War.—*Ind. Vol. Rec.*, Feb. 16.

From the *last* of these we quote some interesting statements:

"Wounds in the Russo-Japanese War.—The Russian Surgeon Z. Von Manteufel has sent a communication to the Revue Médicale Hebdomadaire of St. Petersburg concerning the wounds he has had occasion to treat during the war. Most of the wounds in the head were cured, but some of them gave rise to interesting cases of asphasia and agraphia, or the loss of the power of expression by means of speech or writing, which power was generally, though not always, recovered. The wounds in the abdomen frequently resulted in peritonitis, more especially when the removal of the wounded had taken place too quickly, or had been effected by means of badly hung military conveyances. Where the peritonitis was circumscribed a cure generally followed; but where it was greatly extended the issue was fatal. Laparotomy, more particularly when the surgical operation was performed on the field of battle, was found to be worse than useless. Wounds in the lungs were surprisingly less serious in their results. Cases were numerous in which a ball had traversed the lungs, and the patient, after merely an occlusive dressing of the external wounds, had been able to walk to the nearest station; although, in order to effect a cure, rest was essential in addition to the dressing; these two sufficing unless fever supervened in consequence of internal hæmorrhage. In that case tapping was resorted to after a week to a fortnight had elapsed, and when this failed thoracotomy was performed. With

regard to the nature of the wounds caused by the different projectiles fired at various distances, Dr. von Manteufel did not observe any cases of hollow vessels or organs of the body bursting in consequence of being struck by a bullet at close quarters. In previous wars these cases have been produced by bullets fired at from one to 400 and even to 600 paces, or, where the head has been struck, at from one to 800 paces. From 800 to 1,500 or 1,600 paces the wounds produced have had a ragged edge according to previous war experiences; and beyond 1,600 paces contusions without penetration have resulted. But these experiences have not been confirmed in the present war in the case of bullets fired from the small-bore Japanese rifle, and, as has been mentioned above, Dr. von Manteufel had observed no effects of bursting even when the wounds have been produced by firing at short distances. The cases of wounds in the head observed by him, however, had all been produced by firing from distances of over 600 paces. It is probable, therefore, that all head wounds at shorter distances were fatal before aid could arrive."

MILITARY GEOGRAPHY.

1. The Development of South Africa and the Cape-Cairo Railroad.—*Mar. Rund.*, March.

2. The Development of the Kiontchon District.—*Same.*

EDITORIALS.

GARRISON SCHOOLS FOR OFFICERS.

The Army and Navy Journal, in its issue of April 22, 1905, makes the following statements in defense of our Army and Navy, which we fully concur in:

"He is blind indeed who cannot see that the Army and Navy are already doing their utmost day by day to justify their existence. There never was a time when the Army and Navy in peace performed more work and harder work for the money expended upon them than they are performing to-day. There never was a time when the labor, mental and physical, the discipline and efficiency required of the officers and men of both services were more exacting than at present. Nor was there ever a time when the requirements for entrance into the services and for promotion therein were more rigorous. Modern military conditions are such that our Army and Navy are required to be thorough and highly specialized schools are established in time of peace in order to fit them for effective action in war. The working day of the soldier or sailor, whether he be officer or enlisted man, includes its regular hours of study, drill, practice and other prescribed labor of which the general public knows little or nothing. Yet exacting as it is, this educational routine is responded to cheerfully and faithfully by both services with the result that our Army and Navy in matters of intelligence, physical vigor, discipline, organization, and efficiency are to-day in a condition of excellence unsurpassed at any former period in their history."

The large accession of comparatively untrained officers consequent on the great increase of the Army in recent years, as well as the rapid progress in military matters of all kinds, has justified the establishment of the garrison schools for officers, and their rigid and extended courses of study, as well as more thorough and difficult examinations for promotion lately in vogue.

Nevertheless, it is well to consider the question, now that these new officers have had a fair degree of training and instruction, from the point of view of the officer under instruction.

There is no doubt whatever,

but that the schools have served a most excellent purpose, but the tendency in such matters is always to over-do.

An officer, to be efficient, must be an all-round good man, not only in his professional work and studies, but also in general knowledge, especially of men, and of human nature. Too much schooling will cause officers to lose sight of these other requisites, and time should be allowed to cultivate qualities essential thereto. An officer should have a little leisure for general reading, especially history. After a hard day's work at school the mind is not in condition to undertake such work, which demands *leisure* above all.

The school work thus far has done great good, and was quite necessary, but the time has come when it is beginning to grow a little trying, and many complain of its exactions and its continued demand on their time, interfering seriously at times (especially where garrisons are short of officers) with the efficient execution of the all-important *practical* work of the command.

In the examinations for promotion, too, the tendency naturally is to make them more and more difficult. This tendency will, we believe, be admitted by all who have had extended experience as instructors in any department of instruction. It is well to bear this in mind and to consider it carefully.

There never was a time in the history of the Army when it was more efficient than at the present moment, either practically or theoretically, or when it worked harder to keep up this efficiency. And this in spite of all the new material that it has been required to assimilate of late years. The new organization (particularly the General Staff and the Detail Staff System) and the Post Schools are largely responsible for this desirable condition.

Still, there is becoming evident a feeling that a little moderation of the present strenuous life of the Army officer would be in place, and conduce to greater happiness, more general development on larger lines, and greater contentment in the service, without loss of true efficiency.

THE FIELD ARTILLERY.

The Field Artillery is at present, so far as the officers and men are concerned, a part of the Artillery Corps. The enlisted men of the Field Artillery are kept fairly well separated from the Coast Artillery, but the officers are *detailed* for service in the Field Artillery branch, the majors and captains for indefinite terms, the lieutenants for three years.

When captains of Field Batteries are promoted many have to be transferred to the Coast Artil-

lery, because there are not vacancies for all in the Field Artillery. When majors of Field Artillery are promoted they necessarily pass into the Coast Artillery, as there are no colonels or lieutenant-colonel of Field Artillery provided for.

This is the present condition of our Field Artillery organization.

The requirements of modern tactics, especially as illustrated in the most recent wars, and above all in the war now in progress in the Far East, indicate the following changes as necessary for the highest efficiency of this arm for war:

1. The *complete separation* of the Field Artillery from the Coast Artillery.

2. The *regimental organization* for the Field Artillery.

There are many and serious objections to the present system. The majors and captains of Field Artillery, now in the service, are most of them *without any experience in Coast Artillery work,* and it is unfair to them to transfer them, on their promotion, to the Coast Artillery, and yet this is necessary under the present system.

The Field Artillery officers are also *examined* in Coast Artillery drill and work when they are about to be promoted, and, in spite of the sensible provision which allows them to take a few months course at a coast artillery fort before examination, this is also manifestly unfair, because they certainly cannot learn in a few months what others have devoted years to. It should be remembered, moreover, that most officers take a pride in passing brilliant examinations, and are not satisfied to merely pass.

But there is a more important reason for the complete separation of field and coast artillery.

The work of the two branches is entirely distinct, with no longer any connection between the two. The Field Artillery (including siege, field, horse and mountain batteries) belongs essentially to the *field* army. Its importance in modern war has increased enormously of late years, as proven by the recent battles of the Yalu, of Liaoyang, and of Mukden. Consequently, its study is a life study, just as much as (and even more than) that of cavalry is.

It is impossible for an officer to be at the same time thoroughly efficient both as a Field Artillery and as a Coast Artillery officer. Moreover, the two services are so different that they require in their officers quite different and often entirely opposite characteristics.

The regimental organization is the only one suitable for the artillery of the field army, for the same reason that it is the accepted organization of infantry and cavalry, the other great arms of the service.

As a general principle, the Field Artillery should have comparatively young and active officers in its ranks, and yet not more so than cavalry. Promotion will be too slow if only young officers are among its different grades of rank, and that has been the great stumbling-block in the way of reorganizing the Field Artillery and separating it entirely from the Coast Artillery.

The time has come, however, when this is no longer a mere desideratum, but has become a necessity. In the Russo-Japanese war *regiments* of Field Artillery have been concentrated on the battle-fields and were fought as units.

The Field Artillery is as distinct from Coast Artillery as it is from cavalry, and must be separated from it. All the principal nations of the world have long ago recognized this fact, and it is time we accepted it. The regimental organization, too, has been everywhere found to be the best, and should be adopted. These are the two great elements in the reorganization of our Field Artillery.

The question of *promotion* will have to be determined later. If once the proper organization is adopted, promotion will no doubt be a matter which can readily be adjusted. In the interests of the government it is essential that the Field Artillery be separated from the Coast Artillery and given a regimental organization. In the interests of the Field Artillery officers, and to preserve a proper interest and *esprit de corps* among them, there must be a fair rate of promotion.

These are the three great factors in an efficient scheme of reorganization, and must not be lost sight of, but the two first mentioned are the more important, and should decide in the determination of the grave question before the country. The last appears conflicting at present, and is certainly difficult to assimilate to the other two, but it is believed that it is not so antagonistic but that it can be properly adjusted. Even without the desirable element of fair promotion it is still essential that the Field Artillery be separated from the Coast Artillery and given a proper organization; a regimental one.

SERVICE SALAD.

Readers of the "United Service" are cordially invited to contribute to this department items of either fact or fancy, grave or gay, instructive or only entertaining; in short, any literary flotsam and jetsam likely to interest our subscribers.

There is some criticism of the growing custom among officers of the Army of procuring their service uniforms and overcoats from the Quartermasters's Department. One correspondent writes us: "An Army officer in time of peace should be dressed better than and differently from an enlisted man, but at present it is almost impossible for one who does not understand the rank marks to distinguish them, and not one in a thousand does understand them." It is probably true that the present tendency toward patronizing the Quartermaster's Department is the result of the heavy tailors' bills incurred by officers owing to the frequent uniform changes of the past few years. These changes were not made by the tailors, and in many cases they suffered through the constant revision of the uniform regulations even more than the officers. One practice against which the tailors protest and which is manifestly unjust is the appropriation by the Government of the original ideas of the various manufacturers, without any recompense or credit being given. Every officer, of course, owes it to himself and to the service to appear well-groomed and properly attired on all occasions, and there is undoubtedly a happy medium between the high prices charged by some ultra-fashionable tailors which many officers are willing to pay, and the product of inferior workmen who use cheap materials and are not able to put into a garment the style and the finish that denote the really well-dressed man. If officers should find that garments secured through the Quartermaster's Department lack that "smart" appearance which is supposed to characterize a military uniform, they will probably give their patronage again to the private manufacturer. It should not be overlooked in considering this matter that if the prices charged by military tailors seem comparatively high, this is partly due to the long term or credit often extended to officers, and it is a fact that many military tailors and equipment houses show remarkable patience in carrying on their books accounts that have been standing many months or even years.—*From Army and Navy Journal,* April 15, 1905.

HOW "CHINESE GORDON" SAVED A "DOCKER."

Yes, " Chinese Gordon" (then a captain of Royal Engineers) very nearly had to put up with a "docker" for the China campaign of 1860. But perhaps, before relating the following anecdote, I ought to explain the meaning of the word "docker." It is the British soldier slang term for a war medal without clasps, and originated in the Crimea,—a medal only being awarded to the soldiers who arrived after the docks were blown up on the evacuation of Sebastopol by the Russian. In like manner in China a medal only was awarded to soldiers who were in the country, but not present with the army before Pekin on October 6, 1860.

It is not necessary to relate how Captain Gordon was ordered to the seat of war, suffice it that he arrived by the steamer from Hong-Kong at the Taku Forts some time during the day of the 4th of October, 1860, where he immediately heard of the taking of the forts, followed by the advance of the allied armies on Pekin. To join his comrades at the front and take part in the siege and occupation of the capital was his first thought, but how to get there was another thing. He was told that there was no conveyance faster than the usual convoy of all stores and spare ammunition, strongly guarded on account of the many desperate bands of la-la-longs (thieves, marauders) that are always to be found hanging on the outskirts of an advancing army in an enemy's country. But Charley Gordon was not the man to be denied. He skirmished round and eventually picked up a stray Tartar pony, brought it to the transport stables, got a bridle and numna there, put some ship's biscuits in his pockets, slung a water-bottle, buckled on his sword and revolver, jumped on the pony, and the next minute was going at a hand-gallop, amidst the cheering of the men, along the road leading to Pekin, which he had never seen, or heard, or read of before, and infested with thieves,—distant one hundred and fifty miles.

Well do I recollect the night of the 5th-6th of October, 1860, although now nearly tweny-four years ago. For two weeks we had been working hard getting the breaching guns into position, and on the morrow before dawn they were to open, when a breach being practicable, we were to storm. A few of us were discussing our various positions in the morning's work, sitting and standing around the camp-fire, when an English officer covered with dust rode up on a woe-begone pony and inquired if this was the engineer camp. Before any could answer he threw himself off, saying, "How are you, Graham, old fellow?" seeing Major Graham, Royal Engineers, who was one of our party, and an old comrade of Gordon's in the Crimea.

You may imagine our astonishment when we recognized in the newcomer "Charley Gordon." He had actually ridden the one hundred and fifty miles in seventeen hours, most of the time with revolver in one hand and sword in the other, and what between shooting and shouting he had managed to escape scot-free the many attempts that were made to capture him, arriving just in time to take part in the operations of the morning.

After a few minutes' conversation he went off arm in arm with his old friend to get some refreshment and an hour or two's sleep, for Graham was to lead the stormers in the morning, and it was largely surmised that

Gordon would ask permission to accompany him.

It was a daring ride and the whole army talked of it, and how Gordon saved a "docker." "UBIQUE."

Editor of The United Service:

DEAR SIR—Some time ago, early in September, I had the pleasure of writing for the Omaha *World-Herald* a criticism of the battle of Liao Yang, in which I took exceptions to Oyama's plan of battle in making an attack on the Russian center at the time he was executing a flanking movement, thus forcing a concentration of the Russian army at its strongest point and, in the end, resulting in the defeat of the flanking movement by the simple maneuver of retreating, which, with a strong center, the Russians did without great loss. Oyama should have waited until the Russians had made their dispositions to meet his flanking movement, thus weakening the forces in his front; then, by pressing his attack on the center, he would have had a reasonable chance of inflicting on them a crushing defeat.

In view of the victory of the Japanese army at Mukden it is wise to study the source of their success and ascertain, if possible, if it be due to their generalship or to the want of proper military tactics on the part of the Russians. I take the position that the success of the Japanese is entirely owing to poor generalship on the part of the Russians.

There was nothing in the attack by the Japanese at the battle of Mukden which might not have been met, first, by an early retirement of the Russian forces along their line of retreat; second, by meeting the flanking attack on the Russian left by a counter-attack on the Japanese left, followed by a strong attack, pressed home, on their center.

Taking up the first proposition of early retirement along the line of retreat: After the battle of Liao Yang resulted in the outflanking of the Russians and their retirement to the neighborhood of Mukden, the soundest military policy would have been to continue the retreat as far as the Japanese could be induced to follow the Russian army, to Tie Pass or even to Harbin, thus lengthening the Japanese line of communications and shortening that of the Russians and rendering a victory for the latter, if they achieved one, far more disastrous to the Japanese than if they were nearer to their base of supplies. In this position the Russians could have awaited the arrival of reinforcements in overwhelming numbers, or, by prolonging the war by keeping a large army in the field at no time engaging in battle, have broken down the Japanese credit, not then very strong, and have forced them to sue for peace in order to stop the endless drain on their treasury. That would have been the height of strategy, to win victory without battle as exemplified by Fabius against Hannibal and against Napoleon by the Russians.

That the Russians did not adopt this plan must have been owing to an attempt to hold Mukden in order to sustain their war credit or to the hope of relieving Port Arthur, illustrating once more the fable of the dog which dropped a bone to snatch at its shadow.

It may also have been that the Russian occupation of Mukden was dictated by the necessity of getting supplies from the surrounding territory which could not have been obtained in sufficient quantity from Harbin. If such were the case, then they were at fault in having a larger army in the field than they could supply from their

base, thus inviting disaster from the very outset.

But taking things as they were, the Russians occupying Mukden, the Japanese opposing them, what did it mean? That a battle would result, which side would attack? Kuropatkin knew that the attack would come from the Japanese. He could then retreat, meet attack on the left flank by a counter-attack on the Japanese left or vice versa, or do as he did, stand still and attempt to beat back the Japanese at each point where he was attacked, not knowing from one hour to the next which point that would be. In other words, he was attempting to be stronger at all points than his enemy at some one point—a physical impossibility.

After the fall of Port Arthur and the resulting increase of the Japanese army by their forces from that place, the position of the Russians at Mukden became strategically untenable, and they should have retreated without a battle, or, determining to wager success on a single encounter, proper dispositions should have been made to achieve success.

For weeks the Japanese had been working toward the Russian left flank. Those troops came from somewhere, that is, from the enemy in the Russian front.

Kuropatkin's dispositions for battle should have provided for the recall of all his troops on the left flank by forced marches to his center; the sharpest kind of a counter-attack on the Japanese left, where presumably they were weakest. When their left was reinforced from their center, to have crowded home his own attack on the center with good prospects of breaking through at some point, in which case the war would have been over for the Japanese. Not more than two days should have been required for this action, while reports show that Kuropatkin was engaged in an eight days' scrimmage attempting to meet the Japanese attack where they chose to make it and having no prospect of victory, simply the hope to ward them off.

The Russian campaign seems to have been one for the relief of Port Arthur. One of the "on" affairs. "On to Richmond," "On to Berlin," "On to Ladysmith."

The relief of Port Arthur required a victory over Oyama's army. In no other way could it be accomplished. To defeat Oyama, the latter acting on the defensive, would have required an army far superior in numbers to that possessed by the Russians at the battle of the Shake River or at any time since.

With Oyama making a flanking attack, the Russians had a chance of success, as outlined in this article, and had the counter-attack failed of its legitimate object, the piercing of the Japanese center, the Russians could then have retreated with no greater loss than they sustained without having any prospect of success beyond the hope of holding their position.

That the Japanese center was weak is shown by the fact that their successes came from their flanking attacks. The Russians left Mukden practically unpursued at that point. In fact, it was hours before Mukden was occupied by the Japanese. Sufficient time elapsed to allow Chinese bandits to come between the two armies and murder nurses in the hospitals. No greater proof of Kuropatkin's loss of opportunity is needed than the fact that Oyama failed to press an attack on the center with his flanking attacks meeting with full success. He did not do it because he did not have the men at that point to do it with. They were with his forces on the Russian left flank.

It may be thought that criticism after the event is always easy. That had the Russians failed in carrying out the plan here outlined, the practical abandonment of positions on their left flank, casting all their hopes of success on the counter-attack on the Japanese left and final attack on the center, then the plan which they did adopt, that is, meeting the Japanese attack in detail, would have been the one which would have been held out as the proper plan of operations. The fact I have before stated should be sufficient answer to this, that is, that it is impossible to be stronger at all points than an opponent at some one point. The one he selects for attack after weeks of tentative attacks to discover the weakest point. To make his attack effective he must have a superiority in men at that point, leaving himself inferior in numbers at some other point, presumably the one furthest away from his point of operation, or, if not, then his center.

It may also be urged that natural obstacles, such as mountain ridges, impracticable ravines, dense forests or impregnable earthworks, so defended the Japanese left and center that no counter-attack could prevail at those points. If such insuperable obstacles stayed the hand of Kuropatkin, then he was more than ever at fault in attempting to hold a position where his best means of defense, a counter-attack, would be of no avail, where he could be attacked and have no reasonable hope of success in making a counter-attack. The position should have been abandoned before the battle and the enemy induced to follow him to some position where they would not have such natural advantages.

But I do not believe any insuperable obstacles were in the way. The greatest obstacles Kuropatkin had to contend with were the Japanese with guns in their hands. Given the points, their left and center, where they were fewest in number, there lay his greatest chance of success. That he failed to take advantage of the opportunity shows that he was not equal to the command.

To make an omelet, you must break eggs, and to win battle, you must take chances of defeat, but the laws of probability hold good in battle as they do in all other human affairs. If your moves are good, you will meet with success, but you must make good moves. It will not do to leave that all-important matter to your opponent. THOS. P. WARD.

CHICAGO, Ill., April 17, 1905.

TOILET POWDER.

There is no toilet article in the selection of which greater care should be used than a toilet powder.

In these days of imitation and substitution there is so much of inferior goods on the market that it is necessary to be continually on one's guard. Highly-scented toilet powders are so frequent as to be a continual source of danger. Such inferior products will often do a permanent injury to a delicate skin. It is far wiser never to take chances with an unknown article. Be sure, rather, to insist upon a trade-marked product of recognized merit. With toilet powder, as with most other lines of goods, it is safer to trust an old-established house with years of experience and a reputation for making only the best. Mennen's Toilet Powder is a trade-marked article, which has for years been recognized by physicians as the best preparation made. The absolute purity of its ingredients and the exercise of the greatest care and skill in its manu-

facture have given the product of the Mennen Co. a quality of uniform excellence. That is why your physician recommends it.

For your protection, Mennen's face (the trade-mark of the Mennen Co.) is on the cover of every box of the genuine.

All first-class dealers carry Mennen's Toilet Powder and will supply it if you insist. It is supplied by the Government for both Army and Navy.

The fact that over 11,000,000 boxes were sold during 1904 is evidence of the continuing public approval of Mennen's.

SPIRIT THAT MAKES HEROES.

Lieut. Rowan was not the only man, by any means, who ever carried a message to Garcia. There are many men in our daily life who are doing their full duty, but who are overlooked in the mad rush of this strenuous age.

The general passenger agent of the New York Central recently received a letter from a prominent Broadway business man, in which he said: "I take pleasure in bringing to your attention an incident I observed at the High Bridge station, on the Putnam Division, last evening.

"Trainman No. 2679 left a standing train at the station and went down the track with a red light to flag any train that might follow. A well-dressed man went up to him and tried to persuade him to go back into the car and do some small favor for him. 'No, no,' replied the trainman. 'I'm here to flag this train, and I wouldn't leave my post for no man, not even the president of the company.'"

Trainman No. 2679, L. S. Day, is evidently made of the message-to-Garcia material. He aims to do his duty, that's all, but that spirit is the spirit that makes heroes and wins victories.

There is another moral to this story. How many of us see things that deserve commendation, but pass them by because it requires a little effort to write a letter or to "speak the good word." The gentleman from Broadway remembered that:

"It isn't the silence of hope unexpressed
That heartens and strengthens the weak
To triumph through strife
For the great things of life:
It's the words of good cheer that we speak." — *From the Brooklyn Standard Union.*

Editorials from Collier's April 22, 1905.

JUSTICE TO MR. BRYAN.

A letter from Mr. Bryan will be found elsewhere in this paper. On one point we hasten to admit that we were mistaken. Mr Bryan has a perfect right to describe a trust in any way he likes. We should have known that his advertising rule was against corporations controlling more than fifty per cent. of the product. As to Liquozone, he is a little more serious than we intended any reader to be We have had our own troubles in drawing the line. We live to learn, and, having awakened to the harm such advertisements do, we decided to throw them out, which is being done as rapidly as contract obligations allow. There are, however, questions of no little difficulty involved, which will be frankly discussed before long in an editorial talk, in which we shall describe our own difficulties in deciding how to be good in the mildly humorous spirit in which we intended to treat Mr. Bryan. A re-reading

of the editorial convinces us that almost anybody except Mr. Bryan would describe it as a *jeu d'esprit.*

PATENT MEDICINES.

Suggestion accounts for much in the testimonials which many patent medicines receive. If Liquozone were pure water, without any sulphuric acid, it would cure some cases. Nevertheless, it seems clear to us that danger lies in the immense publicity which newspapers give to medicines which pretend to cure almost every thing, contagious as well as non-contagious. In another letter Mr. Bryan says: "In regard to the Liquozone, I beg to say that I shall investigate the matter and act upon the result of the investigation. We have had no complaint from readers of 'The Commoner' since the advertisement has been running, but if I find that it is fraudulent in its representations, I shall not publish it. If you will read the report of the North Dakota College—which, of course, is the report of the man in charge of that department—you will see that he says that the 'free' use of a product containing the amount found of uncombined sulphuric acid can not be looked upon as 'wholly' without 'possible' effect. And the warning is that the public will do well to use such products only upon the advice of the family physician. The words 'free use,' and the 'possible,' together with the recommendation 'the advice of the family physician,' rather weaken the statement of the North Dakota chemist, but it is sufficient to put me on inquiry." These expressions hardly indicate the right spirit. Mr. Bryan must know that taking sulphuric acid and water for consumption or blood poisoning is inadvisable. This needs neither argument nor investigation.

BOOK REVIEWS.

The United States; A History of Three Centuries, 1607-1904. Population, Politics, War, Industry, Civilization. By William Estabrook Chancellor and Fletcher Willis Hewes. In ten parts. Part II., Colonial Union, 1698-1774. New York: G. P. Putnam's Sons. Pp. 539.

A complete history of the United States is really a desideratum at the present day, when our country is taking so prominent a position in world history, and the spirit of Americanism is attracting the attention of all the civilized nations. There is at present no continuous history of marked importance, which covers the entire period of its three centuries of existence, none that contemplates its development in all the different domains of industry, commerce, civilization, education, literature, religion, politics, social life, expansion and war.

There is, therefore, ample reason for the production of the present work, and the present time is most auspicious for its appearance.

The fundamental plan of this history is to trace the evolution of all our distinctive material qualities and industries, "the varied causes that led to what may be called the final Americanizing of the varied national elements from which were made up the people of the American continent from the Atlantic to the Pacific and from the Lakes to the Gulf."

The authors are particularly well fitted for the production of a work of this character. Mr. Chancellor, who wrote the main part of the narrative, has been for many years a student of American history, and has had a wide experience as a teacher and successful lecturer. His style is

vigorous and dramatic, his descriptions are picturesque, and his characterization of the great men who largely made American history what it is is discriminating and critical. Mr. Hewes has for many years been recognized as the leading authority in the realm of statistical and economic history.

This latter part is, indeed, a distinctive contribution to American history, not obtainable elsewhere (except in scattered fragments), and adds an element of exceptional value and novel interest to the work, which appeals to all, young and old—special students as well as practical business men.

The work will be completed in ten parts (each part a separate volume complete in itself), comprising:

Part 1. Colonization; 1607-1697.

Part 2. Colonial Union; 1698-1774.

Part 3. Revolution and Constitution; 1775-1788.

Part 4. The Early Republic; 1789-1821.

Part 5. Industrial Awakening; 1822-1845.

Part 6. The Great Debate; 1846-1860.

Part 7. Civil War and Reconstruction; 1861-1869.

Part 8. The New North and the New South; 1870-1885.

Part 9. Economic Crises; 1886-1897.

Part 10. A World Power; 1898-1904.

Each volume discusses its subject-matter from four different points of view, under four different heads, each of which constitutes a separate section, namely:

Population and Politics.

War and Conquest.

Industry.

Civilization.

The first volume of the work was reviewed in the December (1904) number of the *United Service Magazine*.

The present volume (the second), covers two great periods; *first*, the "neglected period," as it is called, from 1700 to 1760, and *secondly*, the period of the rise of the spirit of Revolution, from 1761 to 1774, and contains, besides, an extended study of the negro population during the later colonial period, which is extremely interesting as shadowing forth the great struggle that was to come.

The first section after considering the growth of population from 1697-1760, the special conditions existing in Georgia, and the western movement of population, with its causes and consequences, describes the different colonial governments, and the political histories of the Colonies, discusses the progress of new France and new Spain, and traces the progress of the spirit of Revolution and the steps toward Colonial Union.

The second section contains accounts of Queen Anne's War (1702-1713), the English-Spanish War (1740-1743), as it affected Georgia and Florida, King George's War (1744-1748) in Canada, the French and Indian War (1754-1763), and the Conspiracy of Pontiac (1763-1769).

The third section treats particularly of the development of the country in agriculture, manufactures, commerce, transportation and finance. The articles on shipbuilding, textiles and iron and steel (including fire-arms) are especially interesting and instructive.

The fourth section discusses the advances in education, literature and social life, the volume closing with an excellent chapter on Contemporaneous European History and a good Index.

The volume is illustrated with twelve large maps and diagrams, and

87 smaller maps throughout the text. The larger maps comprise Europe in 1740, European Possessions in America in 1763, the world in 1774, etc. The diagrams are mainly historical perspectives of population, war, agriculture, etc. The smaller maps are a novel feature and serve a very useful purpose: they are outline sketches of the particular geographical region referred to in the adjacent text.

The thoroughness of treatment, the comprehensiveness of plan, and the completeness of the historical picture presented in this work are thus evident. The great importance of this new history of our country to the young American, its value to the younger generation in its future development, and its tendency to foster patriotism in the highest sense, are apparent. J. P. W.

SURGEON-GEN. PRESLEY MARION RIXEY,

United States Navy.

The inevitable change consequent upon the progress of time brought to the head of the Naval Medical Department one of its most distinguished and capable officers in the person of Rear Admiral Presley Marion Rixey, who was appointed Surgeon General on the 10th of February, 1902. Admiral Rixey was born in Culpepper County, Virginia, on the 14th of July, 1852, and received his early education at schools in Culpepper and Warrenton. His family identified itself with the Confederate cause during the Civil War, which brought financial ruin upon its members in company with so large a proportion of our old southern families. Undaunted by difficulties, however, he sought and achieved an education, both general and professional, receiving the doctorate in medicine from the University of Virginia in 1873. He then undertook to extend his practical acquaintance with his profession by attendance upon clinics and hospitals in Philadelphia during the remainder of the year, presenting himself before the Naval Examining Board early in 1874 as a candidate for appointment in the Medical Corps of the Navy.

He was commissioned Assistant Surgeon in the Navy on the 28th of January, 1874, and set out upon ahat long period of service which has just been crowned with the highest honors attainable in his corps. He was first assigned to duty on the receiving ship Sabine, but soon transferred to the Congress, then on the European station, and later at the Centennial Exposition at Philadelphia, where she represented the Navy. He was detached in 1876 and ordered to the Philadelphia Naval Hospital, where he remained until he passed his examination for promotion to the grade of Passed Assistant Surgeon in 1877. He then took station at the Norfolk (Va.) Navy Yard as Attending Surgeon, where he served until assigned to a three years' tour of special duty on the Tallapoosa in 1879. He was on the flagship Lancaster from 1884 to 1887 on the European and South Atlantic stations, and on the Dolphin from 1893 to 1896. During the Spanish War he applied for active sea duty, but his services were deemed so essential in Washington that he could be spared only to make a brief voyage to Cuba on the ambulance ship Solace. The twelve years of service not enumerated above were passed on special duty as Attending Surgeon at Washington. In 1888 he was promoted to the grade of Surgeon, and in 1900 to that of Medical Inspector.

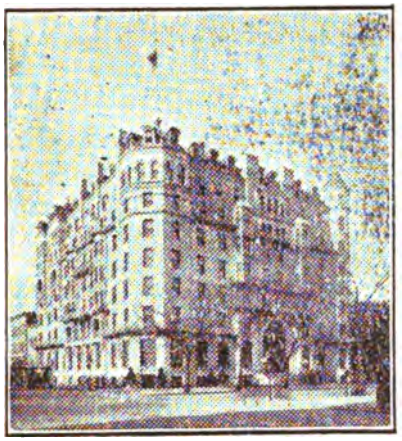
During his long service in Washington he has been honored with the confidence of many of the most prominent men of the country, and for the last eight years has been Physician to the Executive Mansion. It was in especial recognition of the value of his distinguished services in the latter capacity that President McKinley promised him the Surgeon-Generalcy of the Navy when the next vacancy should occur, a promise which President Roosevelt fulfilled. In connection with his duty at the Executive Mansion, it became necessary for him to accompany the President upon all journeys taken by the Chief Executive, and thus it happened that he was in Buffalo when Pesident McKinley was assassinated. He had been detailed by the President to accompany Mrs. McKinley to the Milburn House, whilst he received the people, so that he was not immediately at hand when the

President was shot, but was promptly summoned, so that he was present and assisted with the operation, and took official charge of the case. Here he displayed in the highest degree those qualities which evidenced not only professional acquirements of an extensive range, but executive ability and diplomatic faculties of a remarkable character. The skill and devotion which he displayed in the management of the case of the President, and the almost equally exacting case of the President's invalid wife, won for him the admiration and affection of the entire country.

Admiral Rixey is a member of the American Medical Association, and a member by invitation of the Washington (D. C.) Medical Society. He has been an active member of the Association of Military Surgeons since 1895.

On the occasion of the explosion of the Spanish Caravel, Santa Maria, in the harbor of New York in 1893, he rendered prompt and generous assistance to the officers and crew of the vessel, a courtesy which the King of Spain, Alfonso XIII, recognized by decorating him with the Order of Naval Merit.

The accession of Admiral Rixey augurs good fortune for the Naval Service, and particularly for the Medical Department, which is sure to be developed and advanced by the sagacity, tact and ability which has characterized all the official acts of his successful career.



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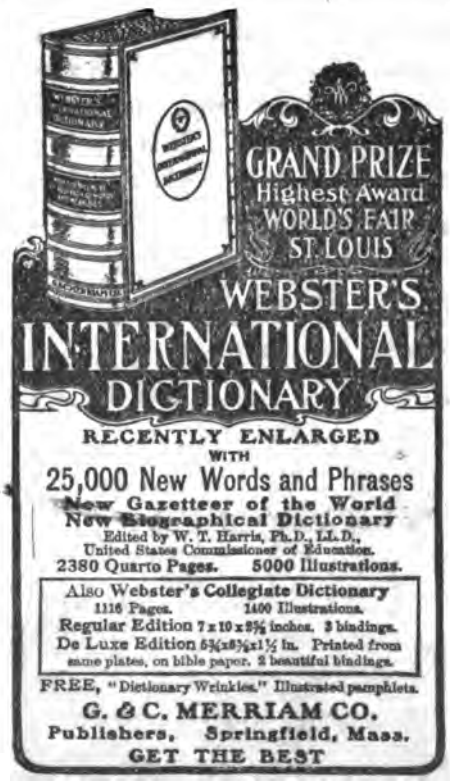

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